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PAPER THE MAGAZINE
In Combined with Paper Trade Journal

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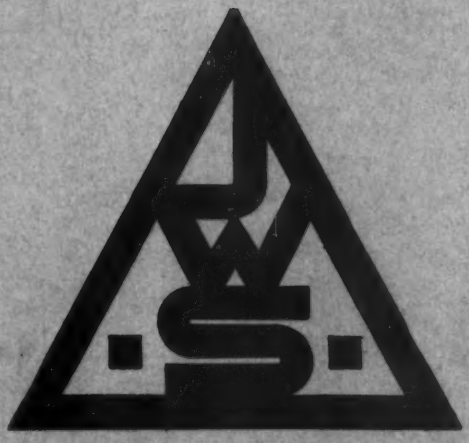
"Good Pulp for Good Paper"



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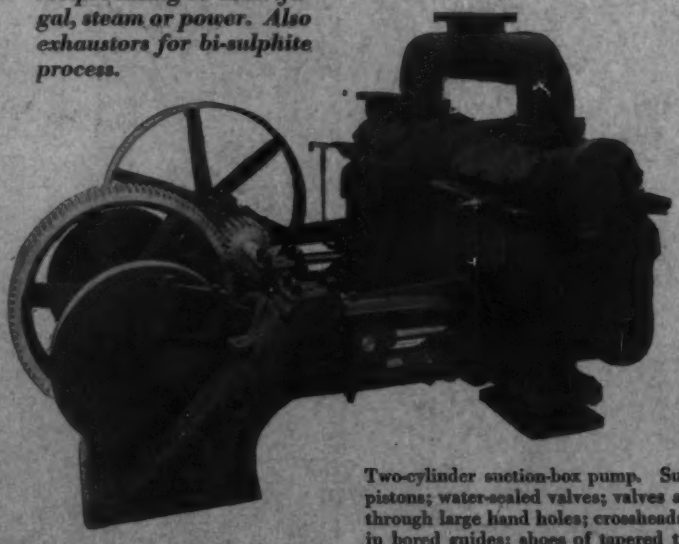

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PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-THIRD YEAR

Published Every Thursday by the

LOCKWOOD TRADE JOURNAL CO., INC.

LESLIE R. PALME' PRESIDENT — GEO. S. MACDONALD VICE-PRESIDENT & TREAS — F. K. HOPPIE SECRETARY

10 EAST 39TH ST. N.Y. U. S. A

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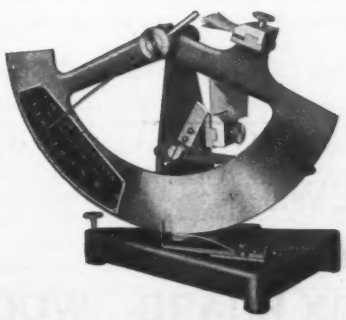

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PAPER TRADE JOURNAL

With Which Is Combined

PAPER

Vol. LXXX. No. 23 — Thursday, June 4, 1925

The Magazine of the Paper Industry

April Production of Paper Shows Slight Decrease

Figures Submitted by Identical Mills to American Paper and Pulp Association Reveal Falling Off of 0.3 Per Cent from Production During March—All But Two Grades Participated in the Decrease—Domestic Wood Pulp Production Increased 4 Per Cent During the Same Period, the Increase Being Distributed Over One Grade.

The April production of paper in the United States as reported by identical mills to the American Paper and Pulp Association and co-operating organizations, showed a decrease of 0.3 per cent as compared with March's production (following an 8 per cent increase in March over February), according to the Association's Monthly Statistical Summary of Pulp and Paper Industry. All grades showed a decrease in production as compared with March, with two exceptions.

The Summary is prepared by the American Paper and Pulp Association as the central organization of the paper industry, in co-operation with the Binders Board Manufacturers Association, Converting Paper Mills Association, Cover Paper Association, Newsprint Service Bureau, Wrapping Paper Manufacturers Service Bureau and Writing Paper Manufacturers Association.

The figures for April for same mills as reported in March are:

Grade	Number of mills	Production. Net tons	Shipments. Net tons	Stocks on hand end of month. Net tons
News print	66	132,661	129,881	29,446
Book	63	91,354	90,538	39,668
Paperboard	103	118,848	113,890	35,131
Wrapping	81	50,743	49,219	62,225
Bag	25	10,542	9,600	7,289
Fine	82	30,615	31,322	39,419
Tissue	46	11,825	11,413	12,331
Hanging	8	3,522	3,542	1,983
Felts	20	18,488	18,498	3,965
Other grades	64	20,738	20,786	13,311
Total—all grades	...	489,336	478,898	244,768

During the same period, domestic wood pulp production increased 4 per cent, this increase being distributed over one grade. The April totals (mills identical with those reporting in March) as reported by the American Paper and Pulp Association, are as follows:

Grade	Number of mills.	Production. Net tons	Used. Net tons	Shipments. Net tons	Stocks on hand end of month. Net tons
Ground wood pulp	102	128,890	98,081	3,023	166,506
Sulphite, news grade	40	43,024	39,591	2,939	9,660
Sulphite, bleached	21	22,147	18,444	3,742	3,219
Sulphite, easy bleaching	5	3,177	2,633	414	754
Sulphite, Mitscherlich	6	6,613	5,343	1,208	926
Sulphate pulp	10	13,062	11,054	2,385	1,720
Soda pulp	11	17,787	12,936	4,872	2,075
Other than wood pulp	2	98	128	.....	26
Total—all grades	...	234,798	188,210	18,583	184,886

Trade Association Cost Methods Legal

WASHINGTON, D. C., June 1, 1925.—The "trade association" method of co-operation within great industries was upheld by the Supreme Court today over the protest of the Federal Government.

Laying down principles of far-reaching importance to the business world, the court decided that neither the Cement Manufacturers' Protective Association nor the Maple Flooring Manufacturers' Association was invalid under the anti-trust laws.

Chief Justice Taft and Justices McReynolds and Sanford dissented.

The majority opinion in the flooring case says that "the cost of production and prompt information as to the cost of transportation are legitimate subjects of inquiry and knowledge in any industry."

It was not the intent of the Sherman law to prohibit the intelligent operation of business, said the majority opinion.

The operations of these two associations had been declared by Government counsel to be broadly similar and typical of a movement among great business concerns to pool their interests in violation of the Sherman Act under the guise of merely exchanging trade information. With that contention the Supreme Court disagreed, holding that both associations were operating lawfully.

The case of the Maple Flooring Manufacturers' Association was regarded as in some measure a test of the legality of "trade associations" such as exist in many industries. The ostensible purpose of these associations is to exchange information of mutual value to members of the trade, but the Federal Government has taken the position that in some instances, at least, the real object is to circumvent the Sherman anti-trust law.

This contention as it applied to the maple flooring association was upheld by a Federal Court in Michigan, which ordered dissolution of the association. Today's decision by the Supreme Court declares the association to be organized in a valid and lawful manner.

Justice Stone, delivering the opinion, said it was not the intent of the Sherman law to prohibit the intelligent operation of business. No concerted action to restrain interstate commerce, he said, had been shown by the collection of statistics by the association.

Myers Pulp and Paper Mill Sold

DENVER, Colo., June 1, 1925.—Acting under orders of the District court, Wilbur F. Denious, attorney and receiver for the Myers Pulp and Paper Mill, which was declared operating at a loss and insolvent, was placed on the auction block May 27 and sold to the highest bidders: Charles B. Myers, president, and Joseph Buckhalter, manager of the concern, the price being $370,000.

Among the bidders were some out of town people and it was understood that it was their intention to junk the plant, but the owners, knowing that with proper consideration there was a bright future, overbid all others and frustrated any effort to let loose, and will carry on the business which is gaining right along. In addition to the mill here there was some timber lands in Gilpin county involved, and now the former owners have a clean bill of sale to all.

May Not as Active as April for Philadelphia Trade

Demand Was Fairly Well Maintained, However, and Held at Levels of May, 1924—Fine and Coarse Divisions Hold Interesting Joint Session—Paper Dealers Attend Outing of Typothetae—David M. Patton Brokerage Business Being Dissolved—New Quarters for Fleming Co.

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, Pa., June 1, 1925.—In summing up the past month's business as it pertains to the Quaker City trade and that portion of Eastern Pennsylvania and Southern New Jersey, coming under the survey of the Federal Reserve Bank for the Third or Philadelphia District, the June Bulletin of the Federal Reserve Bank will state that although not as active as the preceding month the demand for paper in May, 1925, was fairly well maintained and held at the levels of May, 1924. In summing up the activities of the month the Bulletin which will be issued this week quotes news print as selling in large volume and books, fine wrappings and Krafts moving in fair quantities. Other lines are reported to be moving either slowly or, in the case of seasonal specialties, with a marked improvement over that of April. Prices have been quoted as unchanged with the exception of box boards which now are from 10 to 15 per cent below those of early April. Mills have been reported operating at from 75 to 80 per cent of capacity and the paper converting factories at about 70 per cent.

Fine Papers in Mixed Market

Fine paper dealers, who have been enjoying a more active demand within recent weeks, have been experiencing a mixed market during the closing days of May. A few of the larger distributors report increased demand while the majority of those catering to this class of trade found their business quieter.

The brisker demand for wrappings, krafts and specialties prevailing during the month has been a factor in bringing about the steadier price levels for all these grades in the coarse paper stocks. Dealers find that a comparison of the present mills quotations with those of January on many grades show that they are from ½ x ¼ to ½ cents per pound less than those of the first month of the year and that, with the brighter prospects which have developed within recent weeks, there is more likely to be an advance in prices than the reverse. Keen competition however is anticipated for the future and with it prices of the coarse grades are expected to be held within reasonable bounds.

Combined Paper Association Meeting

At the combined meeting of the Fine and Coarse Divisions of the Philadelphia Paper Trade Association held in the Bourse Restaurant on Thursday, there was the largest attendance of any meeting in recent years. About thirty members, representing practically the entire local trade, were present.

The feature of the meeting that brought out such a large attendance was a presentation of a report by Harold J. Wollaver, Statistician of the Garrett-Buchanan Company, on The Present Cost of Doing Business. No paper in recent years attracted so much attention and favorable comment, and at its conclusion, the Association gave the Garrett-Buchanan Company and particularly Morgan H. Thomas, head of that Company and President of the Philadelphia Paper Trade Association, a vote of thanks for the broad-minded viewpoint on Association affairs, which inspired him to reveal intimate details of his business for the benefit of the whole Association.

Mr. Wollaver presented an analysis of Garrett-Buchanan's cost of doing business. He told how the expenses had been departmentized, so that a check was kept on departments both as to inventory and actual expense. He explained how a friendly rivalry had developed between the different departments as to which one could show the best record for increased business and reduced expenses; how the shipping department economized on electric light, extra hauling and supplies; how the Managers of the various departments increased their turnover and how the salesmen were checked up both as to the volume of business which they produced and the margin of net profit resulting.

General administrative expenses were discussed and the relation they bore to sales expense, warehouse expense and net profits.

Simon Walter of S. Walter, Inc., then volunteered the information that he had checked his figures with those submitted by Garrett-Buchanan and that there was less than 1 per cent variation.

The Huff Paper Company were admitted to membership in the Philadelphia Paper Trade Association.

David Lindsay, Jr., of Lindsay Bros., Inc., representative of the Philadelphia Paper Trade Association on the Board of the Philadelphia Typothetæ presented an application for membership in the Paper Division of the Typothetæ from the Schuylkill Paper Company, recently organized by Fred Balch, formerly of The Keystone Paper Company, and James Andrews, formerly of the James Andrews Paper Company. The matter was referred to the Membership Committee.

The Trades Relation Committee held a meeting following the regular meeting and re-elected Norbert A. Considine of The Paper House of Pennsylvania, Chairman for the coming year. The committee will hold its first conference with the Typothetæ members next week.

Paper Dealers Attend Outing

Many representatives of the Philadelphia Paper Trade attended the outing of the local Typothetæ held during the week at the Brookline Square Club at Brookline just outside the city. There were 23 paper dealers present. The paper men joined in the golf contests and other sporting events with their trade associates, the master printers, and were successful contestants in scoring on the links. Following the outdoor program of entertainment they joined at the dinner table in the spacious Club Rooms and listened to the talk of the President of the National U.T.A. George K. Hebb and then heard the announcement of the election of Charles L. Kinsey of the George Buchanan Company, as President of the Philadelphia Typothetæ. Other officers elected were Vice-Presidents, Julius Weyl and S. Clayton Wicks; Secretary, William Sharpless, and Treasurer, Edward S. Paret. The Paper Trade Committee of the Typothetæ recently elected David Lindsay, Jr., to the Chairmanship of that Committee and he was the official representative of the trade at that gathering. Secretary Franklin W. Health read his report on the activities of the year, making note of the successful results of the educational talks before the paper salesmen held during the winter.

Brokerage Business Dissolved

Following the death of David M. Patton, one of the best known of local fine paper trade representatives and an authority on the grading of papers, the business which he conducted for the past six years in the Commercial Trust Building is being liquidated. Mr. Patton, formerly associated with the Jessup and Moore Company, conducted a specialized book paper brokerage business although carrying several mills lines in other fine papers. The heirs now are disposing of the accounts and expect to vacate the offices by the first of the month but will continue to wind up the business in the remaining months of the year with final settlement by January, 1926.

Harry J. Fleming in New Quarters

With the settlement of the H. J. Fleming Paper Company, in

its new home in the building of the Quaker City Lace Company, at 22nd and Somerset streets, plans for the development of the business became effective. Removal to the new and larger quarters were completed last month and the firm is now expanding its converting services for the small roll products and the manufacture of die wiping papers produced under the "Cloud Wipe" brand. There now are being manufactured a complete line of these small roll products used in adding machines, cash registers, taxi cab meters, telautegraphs, and other recording and accounting devices of like character. There has just been added to the Cloud Wipe die wiping papers a new shade of tan which has been a popular seller among the engraving, printing and stationery trade.

News Notes of the Trade

David L. Lindsay, Jr., of Lindsay Brothers, Inc., 419 S. Front street, who has been touring the mills in the Canadian territory, will this week leave for the Middle West and the Great Lake Region on a combined mill and business promotion tour.

Charles A. Wilder of Wilder Brothers, is planning the expansion of the cutting department of the coarse distribution business conducted in the firm's own building at 12th and Brown streets and, during the past week, spent several days in New York City visiting the various machinery supply houses, looking over new equipment for the proposed expansion.

Among the recent visitors to the Philadelphia trade was John H. Ringe of Merida, Yucatan, Mexico, who visited the Paper House of Pennsylvania, 28 N. 6th street and who reported the loss of considerable paper shipped from the Paper House of Pennsylvania to him in the recent Revolution in that country and amounting to more than 500 reams, seized by Revolutionary Leaders.

To Electrify Underwood Paper Mills

[FROM OUR REGULAR CORRESPONDENT.]

PLATTSBURG, N. Y., June 1, 1925.—The Underwood Paper Mills, one of the branch plants of the Tait Paper and Color Industries with headquarters in Glens Falls, is completely electrifying its plant. The Underwood Mills were formerly operated by water power. The change to hydro-electricity necessitates the installation of considerable new equipment. A modern new generator has been installed, giving the Underwood Mills two generators and a new water wheel has been placed in position. The change to hydro-electricity is made in the interest of plant efficiency. The electric drive will make possible a more even run and will also eliminate the frequent interruptions to plant operation caused by low water.

The new equipment of the Underwood Paper Mills will develop sufficient power to operate the Underwood plant and also the plant of the Pittsburgh Wall Paper Company, one of the newest branches of the Tait Paper Company and Color Industries. The latter company is equipped to use electric power for operating purposes and therefore no changes will be necessary to enable the plant to utilize the electric power generated at the Underwood plant.

B. F. Perkins & Son, Inc., Expand

HOLYOKE, Mass., June 1, 1925.—Announcement was made the past week of the plans of B. F. Perkins & Son, Inc., manufacturers of paper mill and textile machinery, to start work soon on two additional buildings in addition to the one now nearing completion in Willimansett. These buildings are all being constructed according to a plan that will provide for the removal of the entire plant eventually to Willimansett. Plans are being finished by Lockwood Greene & Co., of Boston, and the contracts will be awarded next month. It is expected that the two will be finished in December. One is to be the machine shop, one story in height and 80 x 260 feet. The other will be a two story building 80 x 150 feet both being built of brick and steel with concrete foundation and with plenty of light. Other buildings will be added in the future. It is expected to manufacture the entire product of the company except the calendar rolls in these two buildings.

Folding Box Manufacturers to Meet June 10-11

Attendance at the meeting of the Folding Box Manufacturers' National Association scheduled for Book-Cadillac Hotel, Detroit, June 10-11 will be confined to the members of the Association. Previous to the meeting members of the Research Committee will visit the laboratory at Kalamazoo to familiarize themselves intimately with certain important developments now under way in the Research Bureau and in order that the committee may make a comprehensive report to the members at the Detroit meeting. The Committees of the Association will meet on June 10 to prepare reports to be presented to the members June 11. The activities of the Association will be thoroughly analyzed at the membership meeting on June 11 and conclusions reached as to any revision in procedure that may be considered necessary or desirable.

The Research Bureau is developing into a department of importance. Certain fundamental packaging principles are being developed. They show that comparatively little science has thus far been applied to this problem so far as the average folding box manufacturer is concerned. The urgent need for this laboratory work in the industry is being emphasized more and more as the work proceeds. Some reversal of previously conceived ideas as to the efficacy of certain types of packages hitherto supposed to be quality-keeping is made necessary by the practical investigations being made. One of the investigations under way promises to revolutionize the present systems of making so-called moisture-proof board for quality-preserving containers. The folding box manufacturer must pay attention to the practical solution of these packaging problems if he is to hold his own and be a leader among the manufacturers of various types of containers. The Research Bureau was established to solve these problems for him.

The cost engineers and the cost committees from the interested allied groups held a day's session on May 26 at the Hotel Emerson, Baltimore with the Cost Commission of the United Typothetæ of America for the purpose of agreeing upon definite interpretations of the principles embodied in the agreement of August 21 and 22 last whereby certain differences between the two systems were reconciled. A complete understanding was reached.

Incidentally, the participants were guests of the Baltimore Typothetæ and Craftsmen's Club at a dinner and entertainment given on the evening of May 26.

Following the joint conference, the Cost Division, composed of accountants, held sessions May 27 and 28 for the purpose of analyzing and approving the re-draft of the cost manual and examining and comparing the budgeted operating rates for 1925. The report of this meeting will be published in due course and mailed to all members.

During the course of these sessions the accountants were guests of the Baltimore Typothetæ at a luncheon held at the Emerson on May 28.

Baltimore to Have Largest Folding Box Plant

[FROM OUR REGULAR CORRESPONDENT.]

BALTIMORE, Md., June 1, 1925.—The plant of J. C. Eichman Manufacturing Company, Bush and Wicomico streets, has been acquired by Bartgis Brothers Company, which will shortly give Baltimore one of the largest specialty folding paper box manufacturing firms in the Unted States. This announcement was made last week by H. Findlay French, director of the Industrial Bureau of the Baltimore Association of Commerce.

Bartgis Brothers are now located at 6 South Greene street, and the plant which the company has purchased contains approximately 23,000 square feet of floor space.

The J. C. Eichman Company will erect a new plant on property adjoining its present factory. Negotiations for the sale of the latter to the Bartgis Company were conducted by Maury, Donnelly, Williams & Parr.

Quebec Government to Auction Timber-Limits Leases

Between 2,500 and 3,000 Square Miles in Lake St. John and Abitibi Districts to Be Disposed Of—Price Bros. & Co. Offer First Mortgage Sinking Fund Bonds—Dynamiting Breaks Up Biggest Log Jam in Sixty Years—Bathurst Co., Ltd., to Delay Installation of News Print Machine

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., June 1, 1925.—Between 2,500 and 3,000 square miles of timber limits, the largest quantity ever disposed of at one time by the Quebec Government, will be leased by auction in the course of the month of June in the Lake St. John and Abitibi districts. The exact date of the sale is to be announced later. The coming leasing includes a block along the Aschabachouam River. On the Peribonka River, also in the same district, a large area will be offered and several hundred miles along the Megiscane in the Abitibi. On the Aschabauchouam River, where the largest area is to be offered for lease, there are also some water powers at a point known as "La Chaudiere" and they will likely be disposed of at the same time.

Price Bros.' New Issue

A new offering of $5,000,000 Price Brothers & Co., Limited, first mortgage sinking fund 6 per cent bonds is being made by Harris, Forbes & Co., Limited, at 101 and interest, at which price the bonds yield about 5.90 per cent. The bonds are payable as to principal and interest in Canada, London or New York. The purpose of the present issue is to reimburse the company for expenditures made and to be made on its new 200-ton per day news print mill, now under construction at Riverbend, Que., which it is expected will be in operation December 1, 1925. The company's bonds are followed by junior securities, comprising preferred and common stocks, which have a present market value in excess of $23,000,000. The company's current position is strong and net earnings for the past fiscal year were over 3.4 times the annual interest charge on all the bonds outstanding, including the present issue. The first mortgage bonds, the present offering, are identical with the company's issue made over two years ago, on which there has been a strong market and for which the demand has been consistently active.

Biggest Log Jam in 60 Years

What is stated to be the biggest log jam in sixty years was in effect last week on the Montreal River, which flows into Lake Temiskaming in Northern Ontario, according to advices received at the Canadian Pacific Railway office in Montreal. Three hundred thousand logs were piled up to a height of eighty feet, with a width of 250 yards, choking the river for 300 yards down at a point where the jam occurred. This was in a gorge which forms one of the finest beauty spots of the north. Behind the gorge the river was blocked with between 600,000 and 700,000 logs, which were held by booms. An army of a hundred men were working night and day with dynamite to break up the jam.

Bathurst Co. Delays Extensions

In regard to the reported proposal of the Bathurst Company, Ltd., to instal a second news print machine in the mill at Bathurst, N. B., Angus McLean, the president, states that it is not likely the company will instal another unit until 1926. The sulphite and sulphate pulp departments are being operated to capacity, and while the market is fairly active, there is no improvement in quotations. "We are moving pulp practically as we produce it at current market prices, in which there is no profit," added Mr. McLean.

Whalen Pulp Affairs

Holders of a $3,500,000 bond issue on assets of the Whalen Pulp and Paper Mills, Ltd., which owns plants at Swanson Bay, Wood Fibre, and Port Alice, along the British Columbia coast, the latter two of which are now being operated by a receiver, have been granted, in chambers, postponement of sale of the property until August 1 when they propose to purchase the property. In the meantime the sale will be advertised and a meeting of the bondholders will be held in Montreal to settle what bid will be made for the assets of the concern.

Second Growth in Forests

Plans have been completed at the engineering division of the woods department of the Abitibi Power and Paper Company for a regeneration survey on samples of each of the areas which have been cut over each year by the woods department since the beginning of the Abitibi operations, as well as on sample burned areas. The object of the survey is to determine the rate and amount of second growth to be expected after the virgin stand has been cut over. Plans are also ready to make several experimental thinnings in young spruce and jack pine stands. The purpose of this investigation is to reveal the effect on the growth of the remaining stand such thinnings would have.

New York Paper Men Concerned About Freight Rates

FORT EDWARD, N. J., June 1, 1925.—Increased freight rates by the railroads are causing considerable concern to paper manufacturers in this section and indications are that one of the effects of the higher rates will be a greater use by paper mills of the water routes. At a recent meeting in Glens Falls many of the leading paper mills were represented and plans were discussed for protecting the paper industry against discrimination by the railroads. Among those in attendance were Thomson Douglas, President of the Imperial Pulp and Paper Company, of Plattsburg; George Tait and S. Carter Hall, of the Imperial Wall Paper Company, Glens Falls; Winfield A. Huppuch and C. W. Higley, of the Standard Wall Paper Company; George S. Witham, of the Union Bag and Paper Corporation, Hudson Falls, and Frederick Stevens, vice president of the Stevens & Thompson Paper Company, of Middle Falls and North Hoosack.

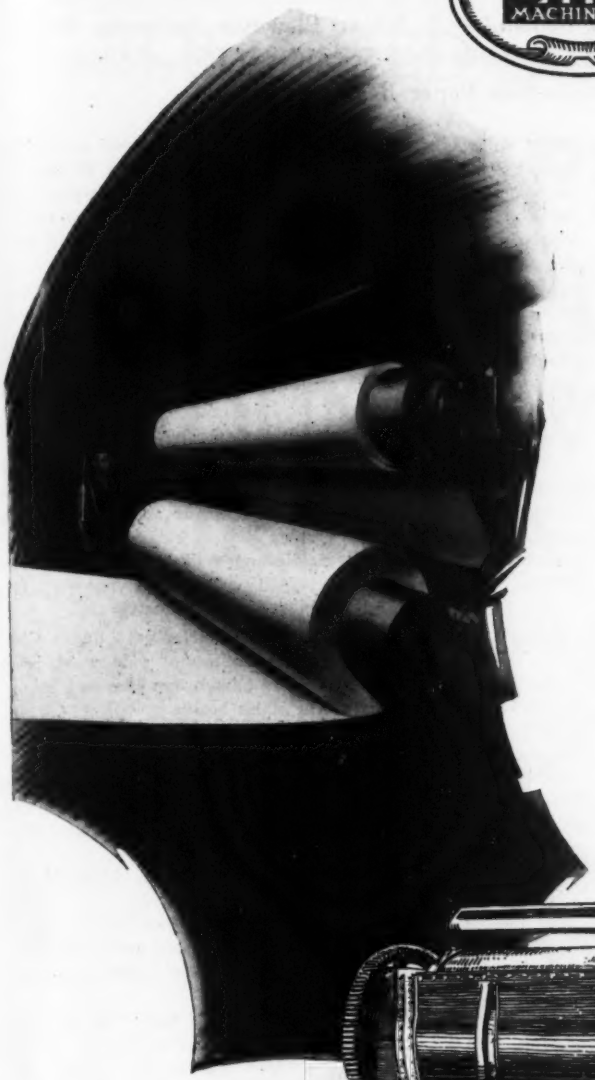
The all water route of shipment, according to paper mill men here, has advantages over shipment by rail not the least of which is the lesser expense. Improvements are planned for the Barge Canal which will enable barges of the larger type to go direct to Glens Falls and this it is said will make the State Barge Canal system available for paper manufacturers in Glens Falls who desire to make shipments by water.

Shipments of pulp and paper are already going over the canal. Five hundred rolls of paper weighing 350 tons were recently shipped by barge from the Fort Edward plant of the International Paper Company. The paper was consigned to New York City. The International Paper Company is also receiving water shipments of pulp at the Fort Edward plant. Special machinery is installed at the canal terminal at Fort Edward for unloading this class of freight.

Rogers Mill Escapes Fire

AU SABLE FORKS, N. Y., June 1, 1925.—The mill of J. & J. Rogers Company, manufacturers of white and manilla papers and high grade sulphite, bleached and unbleached, escaped a devastating fire which swept this place on Thursday, May 14. The fire broke out in the early morning hours, gaining great headway before it was discovered and practically wiping out the complete business section of the city on the Essex County side.

BIRD MACHINERY



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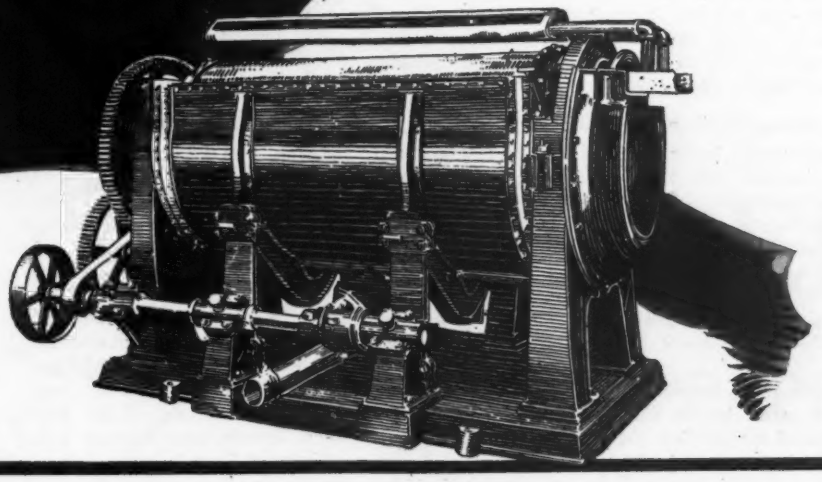

BIRD SCREENS

7788

Toronto Trade Results for May Below Expectations

Business Spotty and Mills Running on a Day to Day Schedule—T. Edgar Plewman Addresses Printing House Craftsmen—Sensational Rise in Shares of Abitibi Co.—Securities of Howard Smith Paper Mills, Ltd. Also Advance—New Paper Bag Company.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, ONTARIO, June 1, 1925.—Owing to many attractions caused by the recent holiday on May 24, business in the paper line was considerably interrupted and the month of May was not as good in net results as expected. Business is still spotty and somewhat unsettled. Mills are running on a day to day schedule and have no large contracts booked ahead as is usual at this season of the year. Coated paper plants are busier than customary and one concern has begun running nights for the first time in many months in order to catch up with trade.

Tissue mills are not rushed and have to undergo some rather strenuous competition from over the line. Box makers are only fairly active but the price of board is well maintained although one of the large producing mills is reported to be operating only three days a week. The wrapping paper turnover is fair and looks a little more encouraging than it has for some time. Other lines remain unchanged and it is hoped that conditions will pick up considerably during the coming month although the trade generally does not look for a record breaking year.

Printers Display Rare Skill

The Toronto Club of Printing House Craftsmen was addressed last week by T. Edgar Plewman, a Toronto man, who has been manager for seventeen years of the most remote Eastern printing press in the world. In spite of being 1,500 miles from the railway, with paper to be hauled 500 miles in frail junks up the Yangtze Rapids in West China, presses to be transported from America, in pieces and afterwards to be reconstructed, Mr. Plewman, who is a missionary, was able to display samples of engraving and printing which amazed the Toronto printing plant executives. With wages unbelievably low, averaging less than four dollars per month, the Canadian Methodist Mission Press in China still outbid Chinese shops for work and Mr. Plewman claimed could undersell Toronto printers in Toronto, after importing western paper. Mr. Plewman will shortly return to the Canadian Methodist Mission Press situated at Chengtu, West China.

Strong Position of Abitibi Co.

Sudden strength recently in the shares of the Abitibi Power and Paper Company, Iroquois Falls, Ont., put the price in Toronto at 71½ where it has not been for over a year. Back of this sensational rise there is apparently a reason. Some think that the ascension may had to do with the fact that the company now has its own rights all along the Abitibi river, which was brought about by the taking over of the Hollinger power plant. This will enable Abitibi to develop the maximum power capacity for which its plant was originally planned and result in being able to handle more business.

The last statement of the company in March showed net earnings of $10.95 a share on the 250,000 common shares of no par value outstanding, compared with $9.59 in 1923 and $7.25 in 1922. There was also a marked improvement in the position of working capital which showed an excess of current assets over current liabilities amounting to $785,445. There is a persistent belief that Abitibi is marked for an increase in dividend. In that event, of course, the present rise would be explained.

Sharp Advance in Paper Securities

A great deal of interest has been centered marketwise in the strong performance given by the securities of the Howard Smith Paper Mills, Limited. The bonds advanced to around par and are now strong at 97½, while the preferred has risen to 104 with the common strong at 41 to 42. These prices represent sharp advances recently. It is stated that the company is doing better than is popularly supposed, sales running well ahead of a year ago, while the promise of export business is considerably better.

The company's expansion program at Cornwall has been completed and is affording the company considerable saving in operations there. Working capital since the passing of the dividend to conserve this position, has been markedly improved, while the company is not faced with anything cumbersome or serious in the way of bank loans.

New Paper Bag Company

A provincial charter has been granted to the Diamond Paper Bag Company, Limited, with headquarters in Toronto and a capital stock of $60,000, to manufacture and deal in paper and to convert the same into bags, packages, cartons, boxes, etc. Among the incorporators are Robert W. Baillie and William S. Reid, both of Toronto.

Notes and Jottings of the Industry

James Thompson, of the Thompson and Heyland Lumber Company, Toronto, who handle large quantities of pulp wood, being among the heaviest dealers in Eastern Canada, has gone on a holiday trip to Vancouver for the benefit of his health.

H. B. Donovan, sales manager of the Canada Paper Company, Toronto, spent the past week in Montreal on business.

W. S. Barber of Toronto, Secretary of the Provincial Paper Mills, Toronto, and wife, spent the past few days in Milwaukee, where he attended the annual meeting of the International Purchasing Agents Association.

James Holmes, of the Beveridge Paper Company, Montreal, was in Toronto last week calling upon the paper trade.

The Ratcliff Paper Company have removed from their old warehouse, 44 York street to 80 York street, Toronto, where they have much larger and more commodious premises, which have been admirably fitted up.

C. N. Ramsay, of Ritchie & Ramsay, coated paper manufacturers, Toronto, who spent the past month at Eastbourne, his summer home, has returned to Toronto. Mrs. Ramsay and daughter are leaving on an extended trip to the Old Country and Mr. Ramsay has leased his summer cottage for the season.

The sympathy of the trade is being extended to H. P. Reid, superintendent of the paper box plant of Kilgour Brothers, Toronto, in the death of his only sister, Mrs. J. J. Davis, 12 Humewood Drive, Toronto, who passed away as the result of an operation.

A. S. Ball, of the Toronto staff of the Provincial Paper Mills, has been removed to the Montreal office of the firm where he assumes new duties.

N. E. Wainwright, of the sales staff of the Provincial Paper Mills, Toronto, spent the past week in Chicago on business.

Lieut-Col. Hercule Barre, Canadian Trade Commission to France, spent a few days in Toronto recently conferring with local paper firms in regard to the export trade.

H. F. E. Kent, managing director of W. J. Gage & Co., manufacturing stationers, Toronto, has returned from an extended business trip to the Pacific Coast.

R. I. Finlay, of the United Paper Mills, President of the Canadian Paper Trade Association, who has been confined to his home with an affection of the eye, is making good progress.

BLEACHED and UNBLEACHED

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The Melting Timber Line

C. R. Berry, Seattle, Wash.

The paper consuming trades and paper manufacturers of the United States have been deeply stirred by the threat of what practically amounts to prohibition of the further use on this side of the border of Canadian pulp and pulp timber. The situation is indeed fraught with far reaching consequences of a serious nature to our mills, as well as to the consumer, and calls for more than words of denunciation of the threatened purpose of the Canadian Pulp and Paper Association.

It is not an occasion for the paper manufacturers of the United States to condemn and threaten reprisal. It is rather a time for a neutral survey to be made of the situation looking forward to a constructive solution of the most perplexing situation.

It may be demonstrated by themselves that the Canadians have a case. The writer has seen the timber line of many an "inexhaustible" forest area melt away like April snows on a southern slope. Almost every fifty year old paper manufacturer has seen this same thing happen, yet, blindly, the same stereotyped course has been pursued, the timber line melting away leaving the mill isolated from its principal raw material and forced, each year to add to its production costs, miles of extra transportation expense. In all probability this condition has not been, nor ever can be wholly unavoidable, but the point is, no effort has been put forth to surround and comprehend these vital problems and find a way out.

May Profit By Our Errors

It might be the Canadians are, in a measure, determined to profit by the tactical errors of the manufacturers on this side. Possibly they see the melting away of *their* timber line, and possibly, with somewhat more modern emotions than did (and do still) our own paper men.

So, the writer maintains, it is an occasion for a display of a neutral rather than a militant spirit, for the Canadians' point of view might be found to be precisely what our point of view should have been for the past fifty years.

But no one can successfully disguise the fact that a Canadian embargo such as is threatened will work incalculable hardship to the paper industry in general in the United States, east of the Rockies at least, an exception that appears somewhat superfluous to the eastern paper manufacturer, but which may have in the future a deeper significance than is generally accorded.

And, supposing the worst that could happen, the Canadians, foresighted as to their disappearing timber line but near sighted as to the defensive forces the U. S. paper mill operators might have to employ, did pass an embargo act, not a drastic one, but one modified so as not utterly to break the "line of communication" to our golden market. Suppose it did actually come to pass, and it is not at all improbable, is there any way of escape other than that of demanding of Europe greater imports? The writer believes there is.

When the Paper Industry Is Functioning Properly

An adage, attributed to Napoleon is to the effect that "an army moves on its stomach." So does the paper industry when it is functioning properly, after that period of time has elapsed that might fittingly be described as "water having sought its level." This way of putting it may sound unreasonable and impracticable and even absurd to those who have millions of invested capital in an immobile industry—that is, one which cannot be plucked up and removed as a Nomad folds and moves his tent. No. The development cost for the manufacture of paper products is far too great to admit of a mill following willy, milly, the receding timber line, for, besides its enormous invested capital in "fixed" developments, its very existence is dependent upon the power it customarily derives from the water power that generally decides its location.

But to consider further the Napoleonic phrase, while the paper industry is wholly dependent upon the melting timber line and it cannot, perhaps, keep up with its rapid retirement, it *may move in part* just as the French general might have had partly to move his army in order to keep it provisioned. And that phase of the situation is precisely what the writer wishes to consider in the balance of this article.

A Proper Subdivision of the Industry

A proper subdivision of the paper industry in the United States seems imperative if it be carried on in anything like its present degree of volume—and it is one of the nation's vital industries, ranking fifth or less among the major group. A parting of the ways between grades of papers manufactured is, in the opinion of the writer, the key to a solution of the difficulty.

Consider for the present, a Canadian embargo has been put in effect, making all but prohibitive the importation of pulp and pulp wood to the mills of this side, with strict reference to the cheaper grades of paper and of boards, but of news print in particular. The Canadian embargo at its worst would not affect very seriously our production in the Eastern and Middle-Western states of the higher grades of paper products, were it possible to cut off entirely, our importations from our northern neighbor of pulp and pulp wood for *ground wood paper products*. These latter grades with an almost insatiate demand upon them are what constitutes the "peak load" of paper consumption, but, notably, news print consumption, the other grades serving as "runner-ups" of mechanical wood pulp production.

The Eastern states will furnish a definite supply of pulpwood timber for a long time to come, if reforestration can be immediately put in practice, although the supply will never be adequate to meet the demands of the nation for the better grades of paper without gathering in a considerable amount from other sources. But, at least the extent of this supply is pretty definitely known.

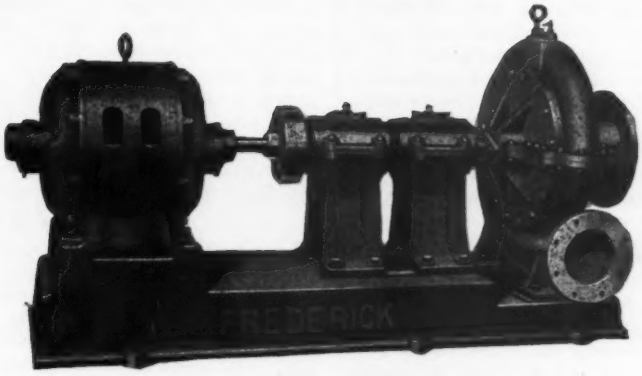
Kraft in the South

The South and Southwestern states have a fairly large supply of timber to draw upon, ideally adapted to Kraft or sulphate products. Reforestation, superinduced by nature being left alone to carry on her work in her own way, has progressed favorably in the South and much of this second growth is now ready for the mill. When we learn to let Nature do her perfect work and keep science off of the job, we will get somewhere with reforestation; the grand dame has a formula all her own in the effort at making one tree grow where two grew before, which she has not imparted to man and it seems to have as much to do with the nitrates and moisture in the air, as the moisture and humus in the soil. But the U. S. Bureau of Forestry is learning fast—to keep out of nature's end of it and see to it more that man does not destroy nature's efforts by his destructive "fire-evil." Much will be accomplished upon what are known as "pine barrens" of Eastern states and within two or three decades there will, without doubt, be a considerable supply of rapid growing species of pulp timber available and it is not at all unreasonable to suppose that it will take up the "slack" occasioned by a too reckless use of the original growth.

The East and Middle West

Hence, it is not entirely out of reason to suppose that by drawing from all parts of the country for pulpwood supply, the existing or "fixed" mills of the East and Middle-West could be kept operating indefinitely *by confining their manufacture to the better grades of paper*. And it is certainly less of a problem to allocate

FREDERICK PUMPS



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to the southern and southwestern states the manufacture of the sulphate and Kraft grades.

In the future, the West must be considered as a strong contender in paper production. In fact, it is now. And in this "zoning" plan of the writer, it would seem to fit in in a most ideal and economically sound manner, to allocate to the Pacific Coast (Alaska expected) to the production of tissues and kindred specialties, where, if there might happen to be danger of an overproduction in these grades, pulp could be moved eastward where the need was the greatest. The Pacific Coast states are more easily reforested than those of the Eastern states and if fire is kept out, the logged-off areas will grow up quite rapidly although with a steadily diminishing quality.

In this article the water divides paper products into four general classes, not a scientific classification perhaps, but one that fits into the locality and the adaptability of the timber species to each class of paper products. Thus we have the East and Middle-West mills devoted to production of better grades of paper, supplemented as far as practicable by materials from other districts whose supply is greater than is necessary; the South and Southwestern mills to specialize in the sulphate products that the timber species of that district are best adapted for; the Pacific Coast states are ideally adapted to the production of the ever increasing paper specialties, boards, etc., of groundwood and sulphite pulp, not including news print or the strong papers. This leaves one, the fourth class, or news print to be "zoned."

News Print in Alaska

This latter, but most important class of paper the writer would allocate to Alaska exclusively. Alaska has a timber supply by which the national demand for news print stock may be filled for all time to come. The latter statement may sound like a gross exaggeration until one gets a formal and first-hand introduction to the huge forests of hemlock and spruce of the Tongass and Chugach National Forests of southeastern Alaska. A former haphazard estimate of 90 billion feet, o. m. is now regarded as far too low. Many forest engineers are in accord with the Forestry Bureau in declaring there is an amount of pulpwood timber anywhere from 125 to 150 billion feet. Here, then, is the solution to the great National problem of supplying news print to newspaperdom in America, without if needs be, imploring Canada to give us of her treasures because we have squandered ours.

The writer would fear for his physical safety were he, in person, to propose such a radical partition or subdivision of the paper production business to eastern mill operators. But like unto a famous tobacco advertisement of some few years ago that adroitly said, "You'll come to it sometime," are not we pretty near to "it" now?

Solve the news print supply problem and the pressure on the entire paper manufacturing situation will abate, a truism not original with the writer. The Canadians have had their eyes opened through the leaping increases in news print consumption in the United States and with a major proportion of their invested capital being American money, they sit quite prettily indeed and the writer cannot blame them either.

No Constructive Solution Yet Attempted

As before stated, the paper mill is an immobile institution and the timber line has melted away so surpringly fast, that little has been done toward a constructive solution of the problem. It may then, be found necessary, as the writer suggests, for mills now making more than one of the four general divisions of paper products, to confine their output to that class for which the timber supply of their particular district is best adapted. True, such a partition or subdividing of established mill operation likely would prove a painful and costly undertaking; yet not near as costly and painful as it will be after the paper industry has become utterly demoralized by its mad scramble after raw material. And we can almost visualize such a condition as of the near future.

It may be that a Federal commission, appointed by Congress and the President could best cope with the exegencies of the situation in view of the fact that the work of allocating future timber supplies to the lumber and paper interests and the general effort at reforesting cut-over areas will be relegated to the Bureau of Forestry. It would be found advisable and even necessary however, to have the best minds of the entire paper industry as well as of Congress to put in effect a fool-proof policy that would benefit all and harm none and most of all, make us independent of Canada and of Europe.

The U. S. Bureau of Forestry has not been asleep to a paper famine and the Canadian government "raising the ante." And the net result of their efforts—quietly enough made—is the existing excellent policy of utilization of the forests of Alaska in combination with the unrivalled power resources of the southeastern portion of the Territory. There they have evolved a practicable and finely adjusted plan of a continuous use of the timber for paper manufacture that should win the admiration of every paper making and paper using enthusiast in the country. The Bureau of Forestry officials have definitely established, on account of the extra rapid growth of timber in southeastern Alaska (due largely to the very heavy precipitation and the mild, humid climate) that complete reforestation may occur in fifty years or less. They have found that here Nature repeats as in no other place on earth her act of "putting back" that which man has taken away.

Fine Degree of Cooperation

In a fine degree of cooperative endeavor, the Bureau of Forestry and the Federal Power Commission have practically set aside both the water powers and the timber resources of Tongass and Chugach National Forests for the exclusive use of paper manufacture and in particular the grades of paper made from mechanical wood pulp. The writer would go a little further and suggest that this be considered as the last (and best) stand for our future news print supply. A feature of not the least importance is the fact that large deposits of minerals and chemicals are to be found in the timbered regions of Alaska.

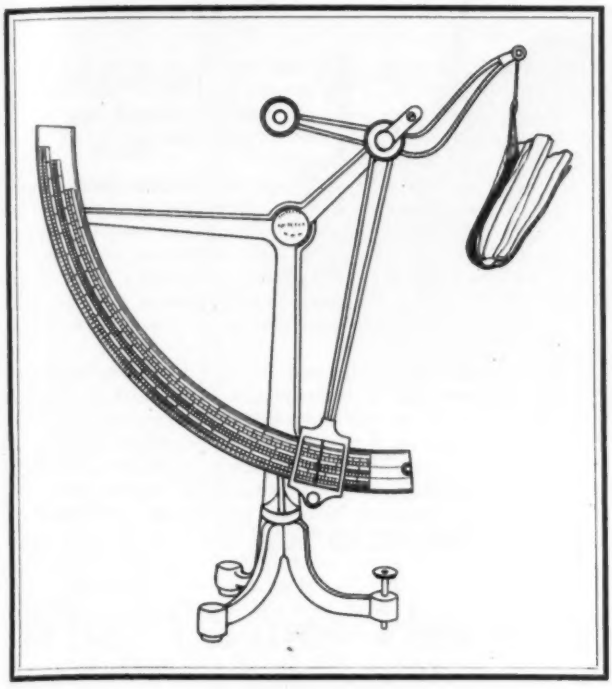
Since neither the Tongass nor the Chugach National Forests have been fully cruised, actual quantities are unknown. But from the writer's observations and investigations there appears to be an adequate, potential supply of pulpwood timber to draw upon to supply all of the demands of the country for news print stock, with ample and unfailing water power for its manufacture. As an example of the magnitude of timber, the writer with others has a "little corner" in the Tongass forest, just a single one among many, having an aggregate power capacity of up to 60,000 horsepower. This, it is adduced, will operate a ground wood mill of 800 tons daily capacity. To such an operation is allocated a sufficient quantity of timber (surrounding its power and mill sites) to maintain this output continuously, under a carefully devised plan of reforestation.

There will be upwards of 15 billion feet of hemlock and spruce within a radius of forty miles of the manufacturing center and a major part of the logging can be done by water.

Conditions in Alaska Ideal

The conditions in Alaska are ideal for news print production, all-year-round operation, no freeze-ups, but little snow, constant power, no fire hazard, water transportation everywhere, excellent harbors, etc. News print can be shipped by water from this point to New York City as cheaply as stock can be carried by rail to the latter place from Northern Ontario. And the benign Territorial and Federal governments are squarely behind the great experiment.

The Canadian threat of an embargo may be a false alarm, but some day the cry of "wolf, wolf!" is going to be followed up by real action on the part of Canadians with their eyes fully opened to a melting timber line and the folly of considering any ordinary body of timber as "inexhaustible."



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The Literature of Papermaking

Reviewed by Harrison Elliott

The Literature of Papermaking, 1390-1800. By Dard Hunter. Illustrated. ($30.00) 170 copies for sale. Leaf, 11¾ by 16½ inches; pp. 48; binding, loose sheets in portfolio, cloth back and corners; specially designed paper sides. Illustration, 16 line engravings and 2 photostats of manuscripts, 24 facsimile reproductions of title-pages, etc. Dard Hunter, Chillicothe, Ohio.

The fourth book from the private press of Dard Hunter is another fine example of his unique one-man work as author, papermaker, and printer. The hand-made type of his own design and making harmonizes nicely with the folio size and makes it a work of artistic interest typographically. The Dard Hunter hand-made paper on which it is printed adds to the physical beauty of the book and is typical of the text. The work is the first comprehensive bibliography of papermaking, and will serve not only as a source book for the antiquarian; but also have a general appeal as it covers a most important period of papermaking history. The chronological arrangement shows the order of early experiments to discover a cheap substitute for rags in paper manufacture. In his prefatory note the author states that, with few exceptions, he set most of his titles and descriptions directly from the type-case without notes or copy from the original books and pamphlets in his own collection. The reproductions of title-pages are in color and on paper as nearly like the original as possible, a feature which enhances the value of the work.

The first item described is the interesting manuscript, now in the German National Museum of Nurnberg, reciting the trials of a papermaking venture by Ulman Stromer, a Nurnberg merchant, who, while traveling in northern Italy, was inspired with the idea that paper could be successfully made in Germany and imported some papermakers from Lombardy. Stromer's labor troubles were the result of an attempt to control a monopoly of papermaking. He was rather highhanded in his treatment of his operatives and forced them to swear to preserve the secrecy of the process. His foreman was bound by oath to work for his master or his master's heirs for life, also to act as bodyguard to his employer, and to impart the secret of papermaking to no one. Stromer's insistence upon secrecy aroused the suspicions of his employees and they curtailed production in an attempt to dishearten their employer so that they might eventually lease the mill at a small sum. Stromer soon sensed this as an attempt to ruin him and, as an example, imprisoned two of the mutinous papermakers in the tower of the mill. Four years of this experience seems to have been ample for Stromer and he finally leased the mill to his foreman.

De Proprietatibus Rerum, printed by Wynken de Worde, the successor to William Caxton, Westminster 1498, is admitted as what is supposed to be the first book printed in England on paper made in that country.

There is a reproduction of the earliest picture of a papermaker at work. It is taken from a German book of trades (1568) of which Hans Sachs, the cobbler poet, was the author. The original was a wood-engraving by Jost Amman showing a vatman forming a sheet of paper upon a mold, with stampers and press in the background.

The first account of papermaking in England (1588) is attributed to Thomas Churchyard. It is a poetical version of 353 lines bearing the title, "A Description and playne Discourse of Paper, and the whole benefits that Paper brings, with rehearsall, and setting forth in verse a Paper Myll built near Dartford, by an High Germaine, called Master Spilman, Jeweller to the Queenes Majestie." The dedication is addressed "To my honorable friend Sir Walter Raleigh," under the title "A Sparke of Friendship and warm good will, etc." The three verses of the poem are quoted, beginning

"I prayse the man that first did Paper make,
The only thing that sets all virtues forth:"

Thomas Fuller's "The History of the Worthies of England." (London, 1662) is cited as showing how the paper of that period indicated the character of the country in which it was produced. "Venetian being neat, subtile, and courtlike; the French, light, slight, and slender; and the Dutch, thick, corpulent, and gross, sucking up the ink with the sponginess thereof."

An early American reference to papermaking is a twenty-six line quotation from Richard Frame's "A Short description of Pennsilvania, Or, A Relation of What things are known, enjoyed, and like to be discovered in the said Province. Presented as a token of Good Will to the people of England." Philadelphia 1692. It recites the industry of the Rittenhouse mill established near Germantown, Penn. 1690, the first paper mill set up in the American colonies.

Venteri Mandey is credited with the first description in English of the appliances used in the maceration of papermaking material. The title of the treatise is in part "Mechanick Powers; or the Mystery of Nature and Art Unvail'd." Which the author claims is "A Work pleasant and profitable for all sorts of Men, from the highest to the lowest Degree." It was published in London 1702.

The rhyming American historian John Holme contributed in 1696 to the literature of papermaking with a bit of verse which did not find its way into print until 1847. The lines appeared in "A True Relation of the Flourishing State of Pennsilvania." The closing lines make a rather terse and eloquent plea for rags for papermaking purposes as follows:

"Kind friend, when thy old shift is rent
Let it to the paper mill be sent."

A letter of papermaking interest to no less a personage than Samuel Pepys is ascribed to Humphrey Wanley. In 1699 he wrote to Pepys about a collection he had made of papers from various countries to satisfy a curiosity as to what sort of paper was in use in each country. The epistle closes with this observation and reason for forming the collection: "I thought that some time or other the history of paper might be attempted, and with so much the more hope of success, when the author, whoever he may be, has before his eyes most of the sorts of that subject that he is to treat about."

An excellent cut reproduces the first engraving of a Hollander or beating-engine as it first appeared in Leonhardt Christoph Sturm's book of machinery and mill appliances published at Augsburg 1718. This volume is considered one of the rarest and most important books treating of papermaking and is of great historical interest.

While there is but a brief mention of Reamur, it must not be overlooked that his treatise in 1719 on the wasp and the fabrication of its nest is the earliest record of any suggestion as to the use of wood as a papermaking material, probably the most important advance in the progress of papermaking.

"A general description of all Trades, digested in alphabetical order: by which Parents, Guardians, and Trustees, may, with greater ease and certainty, make choice of Trades agreeable to the Capacity, Education, Inclination, Strength, and Fortune of the Youth under their Care." London 1747. This is mentioned as the first English book of trades to recognize papermaking as a vocation for the youth of England. It relates that apprentices were required to work from six to six, that they should not be tender lads, and that a journeyman molder's wages were 15 or 18 shillings a week.

The item of greatest interest and rarity is doubtless the work of Jacob Christian Schaeffer, Regensburg 1765-71, in 6 volumes containing 82 specimens of paper made from many kinds of vegetable fibers. Schaeffer was a clergyman with a fondness for science and natural history and his interest in botany inspired his experiments with vegetable fibers. Some of the materials used by him were wasp nests, various kinds of wood, moss, hemp, bark, straw, cab-

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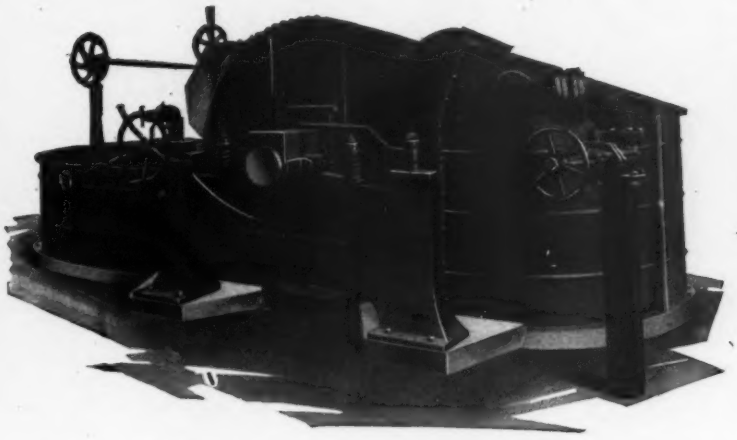

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6598

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

bage-stalks, asbestos, cattail and burdock stalks, thistles, turf, seed, mallow, St. John's wort, Indian corn husks, genista, pine-cones, potatoes, old shingles, reeds, horse-chestnut, walnut, tulip, linden leaves and brazil wood. The paper specimens are in their natural tints as Schaeffer's experiments were conducted prior to the discovery of bleach. His specimens seem to be the earliest examples of paper made from wood-pulp now in existence. An incomplete copy of this work recently sold at auction in New York for $425.

A reprint of Guéttard's treatise on papermaking materials in "Select Essays: Collected from the Dictionary of Arts and Sciences, and from various modern Authors." Philadelphia 1777, has the distinction of being the first article on materials for papermaking published in this country.

Another early appreciation of vegetable fibre as a cheap substitute for rags in exemplified by a book under the authorship of Charles Michel de Villette, London 1784. The paper was made by Lévrier de Lisle who in the preface states that he used various plants, barks, and common vegetables in the search for a cheap papermaking material. The book contains sample pages of paper made from nettles, hops, moss, reeds, conferva, dandelion root, hazel wood, marsh mallow, poplar, oak, and osier bark. One edition was printed on paper made from the bark of the lime tree and another on marsh mallow paper.

Benjamin Franklin's interest in papermaking found expression in a paper read before the American Philosophical Society June 20, 1788. It was "A description of the process to be observed in making larger sheets of paper in the Chinese manner with one smooth surface." He deplored the fact that the European process produced paper in such small sheets and described the use of molds sixteen feet long and five feet wide as operated by the Chinese by means of pulleys and weights which permitted the wet sheet to be deposited on the glazed surface of a kiln-like structure. This imparted a high finish to but one side of the sheet but overcame the necessity of having to join several small sheets.

The bibliography concludes with a description of what is doubtless a classic on papermaking. In 1800 there was printed in London a book written by Matthias Koops with the rather lengthy title: "Historical Account of the Substances which have been Used to Describe Events and to Convey Ideas from the Earliest Date to the Invention of Paper." Koops states that his treatise is "Printed on the first Useful Paper manufactured solely from Straw." A sixteen page appendix is printed on paper made from wood alone. There were two issues of a second dated 1801, one "printed on paper re-made from old printed and written paper" with an appendix on paper made from wood, and another on paper made from straw without an appendix printed on paper made from wood. The issue of the second edition printed on re-made paper contains the earliest samples of paper made from printed waste and is a good example of a successful de-inking process. Hunter has spent much time in an endeavor to unearth some information about Koop's life, but he seems to be the most obscure of all the scientists listed.

The items reviewed may be considered as the high lights in the history of European papermaking up to the first experiments with the machine which was to produce paper in a continuous sheet. To meet the steady growth of interest in this subject, there should be a larger and cheaper edition of the Hunter book. The limited edition of the author's previous book, "Old Papermaking," was quickly exhausted, and copies are now difficult to obtain. A popular edition will, of course, sacrifice the one-man feature, but it is doubtful if Dard Hunter will be able to undertake the making of another book unassisted as failing eyesight seriously handicapped him in the final work on his last volume.

Bankruptcy Petition Against Milton Paper Mills

UTICA, N. Y., May 23, 1925.—Creditors filed a petition in Federal Court today asking that the West Milton Paper Mills of West Milton be declared bankrupt. The liabilities are said to be $2,000,000 and assets $1,000,000.

New York Trade Jottings

William Russell, London manager for the Dorr Company is in New York on a short business trip.

* * *

Assistant Secretary O. M. Porter of the American Paper and Pulp Association is at Springfield, Mass. today attending a meeting of the Glazed and Fancy Paper Manufacturers' Association.

* * *

The seventh of a series of folders being issued by the American Waxed Paper Association is now off the press. It is an attractive piece of literature as all these folders are and deals with the subject, "Do You Buy on Price?"

* * *

Dr. Eric Wahlforss, who recently came to this country in search of a position to do research work in connection with the paper industry, has obtained such a position with Arthur D. Little, Inc., and has already gone to Boston to undertake his new work.

* * *

The Salesmen's Association held its weekly luncheon at the Hotel Belmont on Monday when the coming golf tournament was further discussed. The reports of business conditions indicated that the sales departments are finding things a little more encouraging.

* * *

The executive committee of the Woodlands Section will hold a meeting at the headquarters of the American Paper and Pulp Association on Monday, June 8. The Association reports that funds are coming in nicely for the program of activities mapped out for the year.

* * *

Kurt Svanberg, who is associated with A. R. Nordval of Stockholm, Sweden, has arrived in New York and is to make a study of fiber board container manufacture. Such containers are not used in Sweden at all but the trade is waking up to the possibilities and that has prompted Mr. Svanberg's investigation of the subject.

* * *

Executive Secretary Hugh P. Baker of the American Paper and Pulp Association was in attendance Tuesday and yesterday at the Wilart Party at Dayton, Ohio. Assistant Secretary Porter, who was also slated to attend, found that the dates conflicted with other schedules and was therefore unable to attend. From the Dayton gathering, Dr. Baker proceeded to Niagara Falls to attend the sixth annual convention of the American Pulp and Paper Mill Superintendents' Association.

* * *

After twenty-four years with the Alberene Stone Company, New York, and for some time its vice-president, Arthur Y. Meeker has resigned and severed his connection with the company. Mr. Meeker has been a member of the Technical Association since 1916 and is well and favorably known in the industry. His interest in the sulphate pulp process has been especially keen and Mr. Meeker will continue his contact through his membership on the Sulphate Pulp Committee. Mr. Meeker will make a pleasure trip with Mrs. Meeker for two months and after his return to his home in Montclair, N. J., in August, will consider his future business connection.

Lawson Ramage Goes With Missisquoi Co.

[FROM OUR REGULAR CORRESPONDENT]

BEAVER FALLS, N. Y., June 1, 1925.—Lawson Ramage, for the past ten years superintendent for the J. P. Lewis Company, has resigned. Mr. Ramage will be associated with his brother, Archibald P. Ramage, in the capacity of general superintendent of the Missisquoi Pulp and Paper Company, Sheldon Springs, Vt.

For Greater Water Removal

KENWOOD

WOOL PRODUCTS

In the Manufacture of Board, News, Tissue, Book, Writing or Pulp—

KENWOOD FELTS

insure greater water removal, maximum production and freedom from trouble—at a material SAVING IN COST.

Finish for Board, Book and Writing, with Kenwood Felts, is also unequalled.

Kenwood Salesmen will gladly furnish detailed information.

F.C.Huyck & Sons

KENWOOD MILLS, Albany, N. Y.

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Arnprior, Ontario, Canada

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Framingham, Mass.—The Dennison Manufacturing Company, manufacturer of paper specialties, has completed plans and will soon proceed with the erection of a new addition to its plant, to be two-story, 60 x 130 feet, estimated to cost approximately $75,000. Bigelow & Wadsworth, 3 Hamilton Place, Boston, Mass., are architects.

Buffalo, N. Y.—The Plastergon Wall Board Company, 190-98 Philadelphia Street, Manufacturer of wallboard specialties, has filed plans for the erection of a new plant at site noted, estimated to cost 55,000. The structure will replace a portion of the works destroyed by fire a number of months ago. New equipment will be installed.

St. Paul, Minn.—Brown & Bigelow, Inc., University Avenue, near Syndicate Avenue, manufacturer of paper specialties, has preliminary plans under way for the erection of a new addition to its plant for considerable increase in production. It will be two or three-story, still to be determined, about 80 x 290 feet, reported to cost in excess of $100,000. Colburn & Forsell, 210 South Ninth Street, are architects.

Ontonagon, Mich.—The new addition to be erected by the Ontonagon Fibre Company, McIndoe Street, Wausau, Wis., for which a contract recently was let, will consist of a three-story mill, 75 x 140 feet, to cost close to $125,000. Work will be placed in progress at an early date. D. Everet is president.

Newark, N. J.—Kelly & Co., 780 Frelinghuysen avenue, paper goods, are planning for the rebuilding of the portion of their plant destroyed by fire, May 23, with loss reported at approximately $25,000. The reconstruction is expected to cost close to a like amount.

Batavia, N. Y.—The United States Gypsum Company is perfecting plans for its different lines of production, and has plans for the erection of a new paper-manufacturing plant at its works at Oakfield, near Batavia, the output to be used in connection with wallboard production; it will adjoin this division of the local plant, and will be equipped to give employment to close to 100 additional men. Another structure will be erected to be used primarily for paper storage service. The entire expansion is estimated to cost in excess of $150,000. Headquarters of the company are at 205 West Monroe street, Chicago.

Beaver Falls, Pa.—J. S. Louthan, 1417 Seventh avenue, and associates have plant nearing completion for the erection of a one-story and basement building on Eighth avenue, near Twenty-fourth street, estimated to cost about $35,000. It will be used for paper storage and distributing service. J. E. Martsolf, 512 Third avenue, New Brighton, Pa., is architect.

West Linn, Ore.—The Crown-Willamette Paper Company, Pittoch Building, Portland, Ore., will proceed with the erection of its proposed local mill, for which a general contract was awarded recently to Guthrie & Co., Sherlock Building, Portland. It will be four-story, reinforced-concrete, 100 x 100 feet, located on site along the Willamette River, estimated to cost approximately $250,000, with equipment.

Lynn, Mass.—The G. F. Fellows Box Company, Kingston, N. H., has arranged for the establishment of a local branch plant at property recently leased at 19 Bennett Street, West Lynn district. The space totals about 12,000 square feet, and will be given over entirely to production and distribution.

Watertown, N. Y.—The St. Regis Paper Company is arranging plans for a consolidation with the Hanna Paper Corporation, operating a local mill, heretofore controlled by the same interests, and has general expansion plans in prospect. The Hanna mill will be continued in service as in the past.

Frankfort, N. Y.—The General Tissue Corporation, Litchfield street, plant for the rebuilding of its drying cupola and adjoining property, destroyed by fire, May 21. An official estimate of loss or extent of damage have not been announced.

Buffalo, N. Y.—The Chase Bag Company, 175 Rano Street, manufacturer of paper and other containers, has filed plans for extensions in its local mill, to include the installation of additional equipment. Improvements will also be made in the existing structure. The expansion will cost close to $50,000. Headquarters of the company are in the Woolworth Building, New York.

Montreal, Que.—The Anglo Canadian Paper Company, Montreal, is perfecting plans for the erection of a new mill in the vicinity of Quebec. The plant will consist of a number of units, with power house, machine shop and other auxiliary structures, designed for an output of about 400 tons per day. It is reported to cost close to $900,000, with machinery.

New Companies

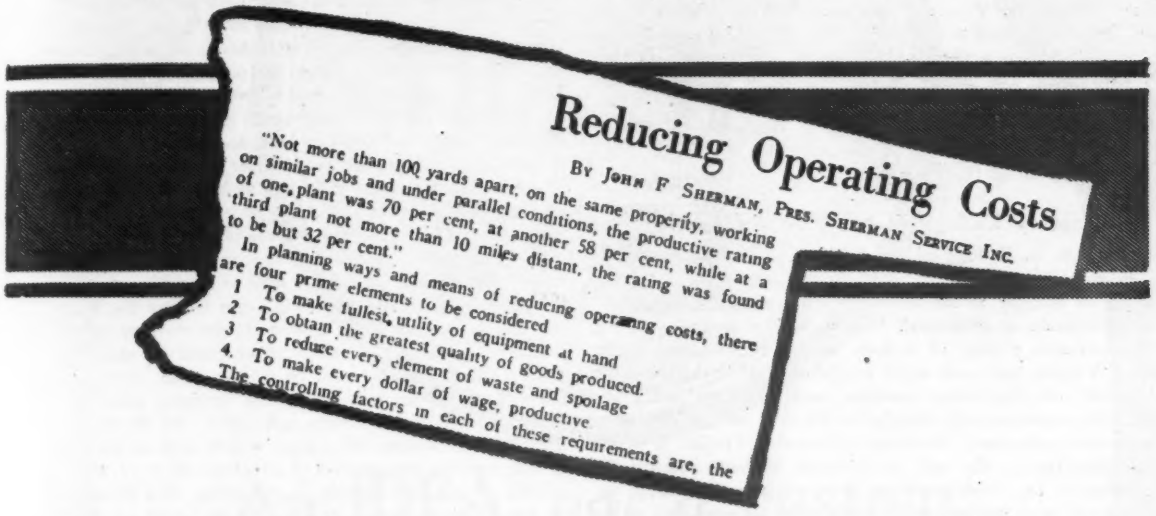
New York, N. Y.—The Voluma Paper Mache Corporation has been incorporated with a capital of 100 shares of stock, no par value, to manufacture paper specialties. The incorporators are M. G. Cohen, W. O. Duntze and F. R. Stevens. The company is represented by L. E. Sherwood, 120 Broadway, New York.

Roann, Ind.—The American Egg Case Company has been incorporated with a capital of $50,000, to manufacture corrugated containers and other kindred products. The incorporators are Q. A. Carter, T. L. Barnhart and Henry R. Garritson, all of Roann.

New York, N. Y.—Charles Maronna & Co., Inc., has been incorporated with a capital of $10,000, to manufacture papermakers' supplies, etc., and deal in same. The incorporators are Charles Maronna, G. R. Holm and P. Padovano. The company is represented by Irving Silverman, 299 Broadway, New York.

Boston, Mass.—The Bi-Pocket Envelope Company has been incorporated with a capital of 1,000 shares of stock, no par value, to manufacture envelopes and other paper products.

WHY DOES ONE MILL HAVE A PRODUCTIVE RATING OF 32% while ANOTHER IS 70%?



Reducing Operating Costs

By John F Sherman, Pres. Sherman Service Inc.

"Not more than 100 yards apart, on the same property, working on similar jobs and under parallel conditions, the productive rating of one plant was 70 per cent, at another 58 per cent, while at a third plant not more than 10 miles distant, the rating was found to be but 32 per cent."

In planning ways and means of reducing operating costs, there are four prime elements to be considered

1 To make fullest utility of equipment at hand
2 To obtain the greatest quality of goods produced.
3 To reduce every element of waste and spoilage
4. To make every dollar of wage, productive

The controlling factors in each of these requirements are, the

THE reproduction of the article "Reducing Operating Costs" from the Paper Trade Journal of March 12th, 1925, by John F. Sherman, President of Sherman Service, Inc., an authority on cost problems, speaks for itself.

The answer to each of the four questions discussed is found in the NEW BELOIT FOURDRINIER, as evidenced by the records made by its users the country over. Under all of the various conditions existing in the making of paper, the BELOIT has shown exceptional performance in every case.

1. To make fullest utility of equipment at hand

The Adjustable, Removable and Shakeable features of the NEW BELOIT insure the fullest utility and the most advanced and modern labor and time-saving equipment.

2. To obtain the greatest quality of goods produced

Here are some records achieved on the NEW BELOIT: A better formed sheet at a higher speed due to the new SHAKE. 60.4 points on a 60-pound sulphite sheet, 26 to 44% more than the usual "point-to-the-pound" on Kraft.

3. To reduce every element of waste and spoilage

Infrequent wire changes eliminate waste in spoilage, loss of time and labor. Smooth operation and special features insure continuous operation and elimination of spoilage.

4. To make every dollar of wage productive.

A saving of 595 man hours in wire changes alone. Improvements where automatic operation replaces man power on a more efficient basis.

Further proof on request. Send for Bulletin No. 9

The NEW BELOIT FOURDRINIER

Beloit Iron Works — **Established**

BELOIT IRON WORKS BELOIT WIS

Beloit, Wis., U. S. A. — **Since 1858**

Frank W. Crocker is president; and John P. Matsen, 71 Sacramento street, Cambridge, Mass., treasurer.

Buffalo, N. Y.—The Disher Paper Corporation has been incorporated with a capital of $50,000, and 1,000 shares of common stock, no par value, to manufacture and deal in paper products. The incorporators are J. F. and C. F. Disher, and B. E. Gearin. The company is represented by Taylor & Shanahan, Buffalo, attorneys.

Financial

Chicago, Ill.—The American Tissue Mills, Inc., Western Avenue and Fifteenth street, has filed notice of organization under Massachusetts laws, to operate in Illinois with capital of $65,439. Benjamin F. Perkins is president.

St. Louis, Mo.—The Commercial Envelope Corporation has filed notice of increase in capital from $5,000 to $30,000.

West Milton, N. Y.—Creditors of the West Milton Paper Mills, Inc., have filed a petition in the Federal Court asking the appointment of a receiver for the company, alleging that it is bankrupt. The liabilities are said to be $2,000,000, and assets, $1,000,000.

New York, N. Y.—The Eddy Paper Corporation, an Illinois Corporation, has filed notice of intention to operate in New York, with capital of 125,000 shares of stock, no par value.

Secretary Kellogg Makes Two Addresses

Secretary R. S. Kellogg of the News Print Service Bureau is now on a week's trip during which he will make six addresses. Speaking on Monday at the annual meeting of the National Editorial Association at Richmond, Va., he said in part:—

"There is now a copy of a daily newspaper published in the State of Virginia for every eight inhabitants. Had this been the case in 1843, the legislature probably would not have laid a tax of $30 a year upon bathtubs installed in the state as a penalty upon undemocratic institutions. However, in justice to Virginia it should be said that Boston, the seat of American wisdom, followed the introduction of the bathtub with an ordinance making bathing unlawful except upon medical advice, which gives us some idea of the difficulty which attended innovations in the days before a newspaper went into every home with its daily summary of world news in science, invention and industry. The thrilling discovery of today is the commonplace of tomorrow, the invention of last year is already an old story, and the balloon-tired wheels of progress are rolling forward with ever-increasing speed.

"The metropolitan dailies of large size and huge circulations, both growing, are reaching into every corner of North America, but the directories tell us that there are still more than 14,000 weekly newspapers in the United States and Canada, and that while there was a heavy mortality among such publications prior to 1924, there was a small increase during the latter year. The small town country weekly is still a most important factor in American life, and it is a healthy sign that this is so. I hope that we shall always have it with us.

"The hectic period of 1920 with its supposed shortage of paper and soaring prices will long be remembered, yet the consumption of news print in the United States is now 40 per cent greater than it was five years ago and nobody seems to be worrying as to where his next shipment is coming from. The United States uses 60 per cent of all the news print made in the world, and North American production in 1925 will be around 3,000,000 tons, or enough to cover two-thirds of the area of the great state of Virginia.

"No one can successfully predict future paper consumption, but it requires no prophetic vision to see that if we are to continue permanently to enjoy the abundant supply of paper and other forest products that have become so essential to us, we must take prompt and adequate steps to protect our timberlands from fire. Fire has destroyed more timber than has been put to any useful purpose in North America. Above all else, we need systems of protection and universal habits of carefulness with fire which will make insurable risks of our forests."

At Toledo, Ohio, yesterday, Mr. Kellogg addressed the Women's Advertising Club and, in the course of his remarks, said:—

"It is an age of advertising, and despite much of the flamboyance and cocksureness, the advertising pages are often the most interesting and sometimes the most informing part of our multitudinous publications. It is less than one hundred years since an Ohio school board solemnly declared that 'such things as railroads and telegraphs are impossible and rank infidelity.' Evidently the modest railroad of those days had no advertising appropriation and perhaps it had not yet discovered the advantages of giving half-rates to reverend gentlemen. However, the railroad was the beginning of the age of speed whose ultimate end no one is now rash enough to predict.

"The medium of speed in advertising is the newspaper. Newspapers furnish the great opportunity for directed, rapid-fire advertising, and conversely, advertising makes possible the modern newspaper of which enough copies are published daily to reach every family in the United States and Canada. A hundred years ago, the newspaper was still in the stage-coach stage of development. Changes in size, contents and make-up have been as radical as the changes in printing establishments and in paper mills through the application of power and labor-saving devices to industrial operations. A roll of paper is now made at the rate of a thousand feet a minute and there are printing presses which use it even more rapidly.

"So accustomed have we become to cheap and abundant paper of every kind that we seldom stop to remember that only within the last fifty years did the world begin to have the paper it needs, and this was not until new mechanical and chemical proccesses were developed by means of which paper could be made from wood. Today probably 90 per cent of all the paper we use comes from the forest, and our news print and wrapping paper are as much forest products as our chairs and tables. In the neighborhood of 3,000,000 tons of news print paper will be used in the United States in 1925 and our consumption of all grades of paper is far in excess of that of any other people on the globe. We have land enough, fit for no other purpose, to grow all the wood we need for paper and other essential forest products if it is kept steadily at the job."

Kleon Thaw Brown Dies

DAYTON, Ohio, May 28, 1925.—Kleon Thaw Brown, treasurer of the G. H. Mead Company, died last Wednesday at the Miami Valley Hospital, after an operation for appendicitis. He was 39 years of age and came to Dayton about ten years ago, where he became prominent in the business, civic and social life of the city. He was born and educated in Cincinnati, finally graduating from the University of Cincinnati, after which he attended Miami Military Institute at Germantown, Ohio. He came to Dayton to take a position as general manager of the S. T. and G. A. Gephart Company. He was with them for five years and then went to the G. H. Mead Company. The deceased is survived by his widow who was Miss Katharine Louise Kennedy of this city whom he married on April 20, 1921. The interment was in the Spring Grove cemetery, Cincinnati.

Boston Paper Trade Meeting

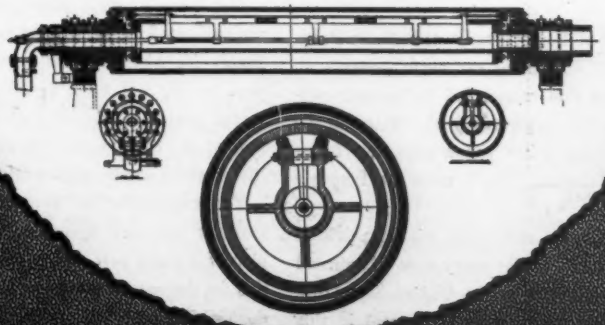
[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., June 1, 1925.—The Annual Summer meeting of the Boston Paper Trade Association will be held at the Vesper County Club, Lowell, Mass., on Tuesday, June 9. Various sporting events have been arranged and the Golf tournament is scheduled to start promptly at 9 A. M. Members and guests will be provided auto transportation from Boston and those intending to be present should communicate with F. Bendel Tracy, secretary, 145 High street, Boston, Mass., who will see that they are properly looked after.

Kilberry SUCTION ROLL

An IDEA, *not a custom,* made this Suction Roll

BRIEFLY, the salient features of this modern Suction Press or Couch Roll are as follows: (1) Common sense bearings, about one-half diameter of shell. (2) Infallible alignment of suction box to shell, no adjustments required. (3) No wear on packings, therefore no replacements. (4) Direct jaw clutch connection to driving shaft, no gears. Write to the DOWNINGTOWN MF'G CO. (Green St. Plant), East Downingtown, Pa., for complete information and prices.



PAPER TRADE JOURNAL
ESTABLISHED 1872

With Which Is Combined

PAPER

The Magazine of the Paper Industry

HENRY J. BERGER, Editor

Member A. B. C. Audit Bureau of Circulations

Vol. LXXX New York, June 4, 1925 No. 23

NEED OF FOREST PRESERVATION

It is not unusual for railroads to have in their employ agricultural and commercial agents, but to hire foresters whose business it is to stimulate an interest in the conservation of tree growth on idle and waste lands contiguous and tributary, is the exception rather than the rule in the activities of railroads. The Pennsylvania Railroad is one of the exceptions. This up-to-date railway system, it is said, has as many as twenty-five foresters under the direction of their chief forester.

Rightly considered there is much in this field to be done; right-of-ways are to be made fire-proof to prevent the spread of fire from locomotives; regulations are to be kept up to the standard in fire prevention appliances on all locomotives; waste lands owned by the railroads are to be protected from fire and planted to trees. From seventy-five to ninety per cent perhaps of the land owned by various interests, farmers, lumbermen, capitalists, residents and non-residents, tributary to the railroads are idle and will produce tonnage in the way of useful timber trees in enormous quantities if properly conserved and protected from fires. Much encouragement, direction and education among the people in order to attain this high ideal is necessary and it is a challenging field for the activities of railroads.

Under the capition, "The Need of Forest Preservation," the Pennsylvania Railroad on the back of its dining car menu presents an argument for forest conservations that cannot fail to increase considerably the growing interest in this important work. Many in the paper industry will not fail to appreciate cooperation for forest conservation from an unexpected source. This is what the Pennsylvania road urges on its diners:—

"Did it ever occur to you that we owe much of the privilege and comfort of travel to the forest? Under every mile of railroad lie about 3,500 cross-ties. The railroads of the United States use annually 125,000,000 ties. In the time spent at your meal in this car about 10,000 new ties are placed under the steel rails in our country.

"The menu before you is a forest product; 72,000,000 board feet of lumber are used annually in the United States for matches and toothpicks, and you ride in greater comfort because a band of compressed wood fiber is placed about the car wheel just within the rim.

"The products of the forest play an important role in the running of every train in more than a hundred different ways.

"We use wood every day of our lives. From the cradle to the coffin it helps us live and makes our lives comfortable, yet our wood supply is becoming so low that the situation is serious. To insure an adequate wood supply our forests must be protected and cared for.

"The greatest enemy of the forest is fire. In an average year 33,500 forest fires occur in the United States. They burn about 7,000,000 acres and do a damage in property alone of $16,500,000. The first step in forest restoration is to stop forest fires. Will you help? Spread the slogan PREVENT FOREST FIRES—IT PAYS.

"For your own part, do not throw lighted matches, cigarettes and cigars from the car window. It may start a fire that will despoil beautiful scenery, kill wild life, suppress springs that supply pure water, and deprive our citizens of the wood they need. We must have forests to prosper as a people, and to have forests we must give the trees a chance to grow.

"It is estimated that there were 822 million acres of original forests in the United States. Of these only 138 million acres remain and, with 250 million acres of second-growth timber which now is of no commercial value, they make up our present forest resources. Possibilities for further development lie in 81 million acres of land which, though unproductive now, could be utilized for forest growth.

"We have enough forest land to satisfy our human needs. By giving it good care we will insure an ample wood supply, provide good water, and make available ample play places. It is our patriotic duty to handle our forests so that they will serve us well and long.—Pennsylvania State Department of Forests and Waters."

MR. BERRY MAKES A SUGGESTION

The PAPER TRADE JOURNAL in presenting elsewhere in this issue the article on "the Melting Timber Line" by Mr. C. C. Berry of Seattle, Wash., wishes to state that it does not necessarily coincide with or indorse the views expressed by contributors to its reading columns.

Mr. Berry's article makes very interesting reading and his views are presented in the reading columns of the PAPER TRADE JOURNAL simply for what they are worth. He offers an exceedingly ingenious plan, to say the least, to escape the consequences of our folly in recent years in wasting our timber resources in the Eastern section of the country and the threatened embargo on pulpwood from the freehold lands of the Dominion of Canada.

The segregation of various branches of the paper industry in more or less well defined sections of the country has been taking place for years past and is still going on. A noticeable example of this is the marvelous growth in the South of the kraft industry during the past few years, brought about by the abundance of suitable wood and certain favorable circumstances which obtain in that section of the country. Judging from the present situation the South in the not very remote future, seems bound to dominate in

the kraft branch of the paper industry. But in most respects, Mr. Berry's suggestions seem rather far fetched, to put the matter mildly, and seem not likely to be carried out to any very great extent during the life time probably of most men now engaged in the manufacture of paper.

However, Mr. Berry has a least written an interesting article that is not unlikely to attract considerable attention and that may stimulate ideas on an important subject of general interest to paper men.

Swedish Pulp Mills in Good Condition

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 1, 1925.—Conditions in the Swedish wood pulp industry tend to show that the good positions which the mills held at the close of 1924 has been maintained during the first three months of this year, says American Consul Sholes at Goteburg, reporting to the Paper Division of the Department of Commerce. He continues:

The demand from the American market has been constant since the first of the year, with marked improvement in purchases by England, France, and other European countries. Sales of sulphite pulp to the United States slackened during March as the American mills are reported to have purchased the supply required for the first half of the year, but sulphate pulp was in better demand. Approximately 80 per cent of the annual production is stated to have already been disposed of, with inquiries still coming in from America and in consequence prices have advanced.

Sales of mechanical pulp are also satisfactory.

As far as can be ascertained, the high level attained in paper production during 1924 continued during the first quarter of the present year, although three or four weeks were lost on account of labor strikes and lock-outs, and deliveries were delayed. The reclassification of local living expenses and consequent increase in wages, which was agreed to at the conference on wages, is expected to reduce the profits for 1925.

Swedish exporters are pleased with the increased demand on the part of American buyers, and the report that the cement industry is discarding cotton bagging and substituting kraft paper bags for containers is creating considerable interest. The Swedish cement industry, it is pointed out, has for some time been using kraft paper bags successfully.

Exports of paper during the first three months of 1925 were larger than during the same period in 1924, the average in price, however, showing a slight reduction.

White Tar Co. to Increase Paper Bag Output

The White Tar Company of New York city has recently awarded to the Philadelphia branch of The Austin Company, engineers and builders, a contract covering the design, erection and equipping of substantial addition to its factories. The location of the new unit is Kearney, N. J. The building will be approximately 100 feet by 340 feet with a boiler house about 55 feet by 60 feet, all of single story, steel frame construction. There will also be approximately 7,000 square feet of floor space embodied in a mezzanine floor. Included in the contract with The Austin Company, is the heating, lighting, plumbing, sprinkler system and the necessary boiler house equipment. Long continuous runs of side and end wall steel sash will insure an ample amount of natural light and ventilation. The builder has agreed to complete the work in ninety working days.

For a decade, The White Tar Company has been prominent in the manufacture of moth paper bags and candles. It has been indicated that the new unit will be used to increase the output of these products.

Bird Walker is president, L. S. Landers, Vice President and J. S. Scheuch, secretary and treasurer.

Champion Coated Paper Co. Entertains

[FROM OUR REGULAR CORRESPONDENT.]

NEW ORLEANS, May 25, 1925.—E. K. Hunt, advertising manager of the Champion Coated Paper Company, entertained at a banquet of sixty-six covers in Kolb's Restaurant last week. It is generally understood that all stags are enjoyable, but this one was exceptionally so due to the fact that Mr. Hunt gave a most interesting talk on how the Champion Mills have been modernized.

Mr. Hunt had as his guests, Walter G. Cleveland and A. D. Cleveland, president and vice-president of E. C. Palmer & Co., Ltd.; G. M. Rogers, Albert C. Abbott and Chas. E. Sprott, all officials of the E. C. Palmer & Co., Ltd.; Louis G. Mendola of Mendola Brothers; L. E. Harper of the Standard Printing Company; Rene J. Villere, secretary-treasurer of the Standard Printing Company; H. Jordan of the Roosevelt Hotel Printing Department; Ben and Henry Goldman of the Goldman Printing Company; P. D. Lorio of Perry & Buckley Company; W. L. Jones and George S. Berry of the American Printing Company; E. K. Russ of F. F. Hansell & Brothers; Wm. J. Bellott and Jos. B. David of the Franklin Printing Company; W. J. Speyer of Hauser Printing Company; L. L. Bernard of E. C. Palmer & Co., Ltd.; A. W. Steeg of Steeg Printing & Publishing Company; Ross J. Biguenet of A. W. Hyatt Stationery Manufacturing Company; H. W. Boudousquie of Boudousquie Printing Company, Ltd.; Paul J. Sendker, printer; J. W. Hawley of A. W. Hyatt Stationery Manufacturing Company; W. W. Carter, Sr. of E. C. Palmer & Co., Ltd.; Victor Colomb, president of Palfrey-Rodd-Pursell Company, Ltd.; Moise Steeg of the Steeg Printing and Publishing Company; Ralph Palfrey of Palfrey-Rodd-Pursell Company, Ltd.; S. Massicot of the Commercial Stationery Company; Sirgo both Senior and Junior, of the Southern Printing Company; Philip Melancon of E. C. Palmer & Company, Ltd.; Mr. Beck of Dameron-Pierson Company, Ltd.; J. R. Parrish and Fred D. Jung of E. C. Palmer & Co., Ltd.; Mr. Toca of the Pan American Dameron-Pierson Company, Ltd.; A. C. Upton of the Upton Printing Company; George Briwa of The Victory Printing Company; A. J. Dickerson of the Tulane University Press; A. Schwark of the Enterprise Printing Company; R. A. D'Aunoy of the Louisiana Printing Company, Inc.; W. M. Knight of E. C. Palmer & Company, Ltd.; John Fisher of Dameron-Pierson Company, Ltd.; C. R. Nelson of the C. R. & W. A. Nelson Company, of Chicago; A. N. Peirce, Jr., and R. C. Aultman of E. C. Palmer & Co., Ltd.; Rudolph Engel of Progress Printing Company; C. S. Witcher of Woodward-Wight and Company, Ltd.; J. J. Wetzel of the Standard Printing Company; A. C. de Luna of Woodward-Wight & Company, Ltd., J. J. Weihing, Jr. of J. J. Weihing Printing Company; A. T. Egan and George Schwartz of E. C. Palmer & Company, Ltd.; Mr. Dugazon of Dugazon & Company, Ltd.; Messrs. L. J. Feugas of the Dugazon Company, Ltd.; C. F. Kottemann, P. N. Parsons, J. A. Maschek, Jr., all of E. C. Palmer & Co., Ltd.; Mr. L. E. Galeniche of the Crescent Printing Company and Reuben S. Wells of E. C. Palmer & Company, Ltd.

Fort Orange Paper Co. Tax Case

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., June 1, 1925.—The United States Board of Tax Appeals was handed down a decision in the taxpayer case of the Fort Orange Paper Company of Castleton-on-Hudson, N. Y., involving $40,373.

The deficiency is to be re-computed and the board held that where, in prior taxable years, a taxpayer failed to deduct a reasonable allowance for the depreciation of property used in its business, it may not accumulate the additional depreciation sustained in those years and deduct it in the taxable year, in addition to the depreciation sustained in that year if the property has a further useful life.

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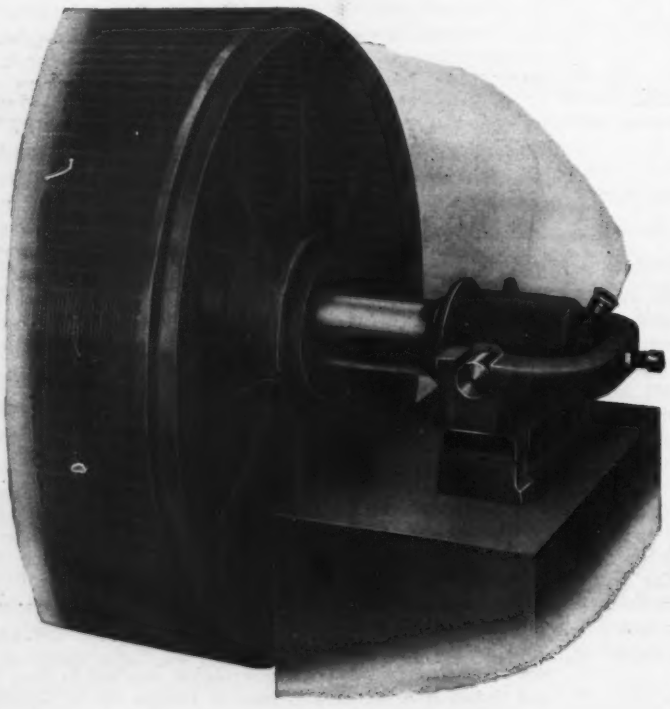

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Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W. G. MacNAUGHTON, Secretary

Bonds, Ledgers and Fine Papers*

By W. D. Somerville, Eastern Manufacturing Company, South Brewer, Me.

The subject, Bonds, Ledgers and Fine Papers, covers such a wide field that I will have to deal with it in a very general manner, emphasizing only one or two of the many different problems a superintendent in these lines runs up against every day.

In the first place, it is difficult to draw the line where these grades begin and where they end, but to all practical purposes they include papers between the prices of 7 and 50 cents per pound which are primarily used for correspondence or record.

The term, "Bond Paper," usually includes any paper from 13 pound folio to 24 pound folio, which is reasonably hard, of moderate finish, and intended to be written upon either by pen and ink or by typewriter. This probably seems a wide generalization, but in late years any papers within these limits have been called Bonds, and quite a number outside of them. The same generalization applies to Ledgers except these papers, as a rule, are from 20 pound folio up and carry a higher finish and have a longer formation.

Sourse of the Names

Originally, the term "Bond and Ledger" was a well defined type of paper; bond papers being made entirely of rags and being used for legal documents and papers which had to withstand constant handling and being capable of the maximum resistance to deterioration from age. Ledger papers were used, as the name implies, in ledgers and also had to stand constant handling and erasures. From the two beginnings have descended a multitude of papers which, in many cases, only bear a very faint family likeness to their ancestors, whose name they bear. The old bonds and ledgers were made regardless of cost and of the very best quality of materials; their only aim in life was to be good, and every effort was made by the papermaker to make the best sheet of paper.

At present the manufacture of these papers is a constant struggle to give the customer the best for the current prices of the different grades. A few bonds are still manufactured on the basis of quality alone, but the majority are a compromise of many factors, trying to resemble the higher grades in as many of their good qualities as the cost of manufacture will allow.

The papermaker of bygone years, with his own aim, quality, had a very different task from the modern papermaker who knows that with a given furnish and the maximum speed, he can just make the average bond show a very small profit, so that every time he tried to improve one quality in the paper he does it at the expense of several other qualities.

Different customers are inclined to look on a similar paper with a different eye, so the papermaker of today is faced with the difficulty of satisfying the varying demands of the trade, and still keep within a certain price limit.

No Present Standards

The paper business is very far from being standardized, and the fine papers probably less than other grades of paper. There are multitudes of sizes, weights, colors and finishes, which complicates matters unduly and causes many changes on the paper machine which would have been avoided if the product was more standardized.

Some mills run several hundred shades, including from forty to fifty shades of white, which makes the burden of the fine paper superintendent heavier, especially as the gradations between some of the colors are so slight that for all practical purposes they could be cut down very considerably. In addition, the cost of the paper is increased, owing to the numerous changes and lost time.

The sooner some reasonable amount of standardization is injected into the fine paper business, the better it will be for everybody, including the superintendent, who has to wrestle with the hundreds of difficulties and numerous changes which interfere with the smooth running of a mill.

Some of the Difficulties

As there are so many varieties of paper which come under the heading of Bonds, Ledgers and Fine Papers, it would be useless to try to go into the various characteristics of all of these papers, as this information would probably be out of date some time before it could be compiled, therefore, I will touch lightly on some of the troubles that particularly affect the fine grades.

One of the chief cares of the superintendent of the fine grades of paper is to produce clean paper. Dirt can be divided into two classes:

(1) Dirt in the raw material.

(2) Dirt put into the half stock and paper while in the process of manufacture.

Dirt in the raw material can be subdivided into three classes: In the rags, in the woodpulp and in the filler, alum, size, etc.

The dirt in rags has to be eliminated by careful dusting, sorting, and complete boiling and washing. Every different rag has its characteristic dirt, such as rubber, rust, oil, dust, metal, etc., in fact nearly every conceivable type of dirt and it is a matter of considerable experience to be able to concentrate on the particular dirt

* Delivered at the Annual Convention of the American Pulp and Paper Mill Superintendents' Association, Niagara Falls, N. Y., June 4, 1925.

in the sorting operation, which can be removed in the subsequent operations of cutting, boiling and washing.

The rag room is one of the vital departments in a mill, and is one of the first places to check if an unexpected amount of dirty paper is coming through.

Dirt in wood pulp consists generally of cinders, bark and wood shives. The usual way the papermill superintendent attempts to cure this is to make the life of the pulpmill superintendent as miserable as possible, when possibly the bark and shives improve. The cinders will probably stay about the same, unless the pulpmill superintendent in turn can pass the buck to the power plant, and some change in fuel or the location of the pulpwood pile is made.

Cinders, which work into the cracks in the pulpwood, give the most trouble, as they are very hard to get rid of. The cinder dirt is very often the worst dirt in papers as cinders not only come in through the woodpulp, but get into the paper in the course of manufacture, and after a high wind one is very apt to get a lot of trouble from this source.

Dirt from filler, etc., can best be controlled by purchasing the cleanest materials, and then screening all that can be screened before putting it into the beaters. Dirt from these sources is very slight provided proper care is taken in the storing and handling and preparing for use.

With regard to dirt put into paper in the course of manufacture, you must first of all have a good filtration system for the water, the equipment must be in good condition and as little iron as possible must touch the half stock.

Good Housekeeping Necessary

Above all, the mill must be kept in as orderly a manner as possible, as dirty and untidy conditions around the mill always mean the transferring of dirt into the paper with the broke returned to the beaters.

The keeping of the broke clean in the beater room and care in tearing off dirty pulp from the outside of rolls depends to the greatest extent on the training of the beater room crew. If the room is dirty it is hopeless to expect the beater crew not to be careless about furnishing dirt.

We were surprised some years ago in seeing vast quantities of small black specks coming in the sheet. They were something like rubber but as there was no likelihood of there being rubber in that furnish everybody was baffled. These specks were spread through the contents of the machine and jordan chests. Some time afterwards we learned that one of the beater helpers had, in a playful mood, thrown a boot at another of the crew, and it had gone into the beater and been chewed up. I imagine that boot probably covered more area than any other one on record.

I also know of a mill who dropped a copper dipper in a beater and as a result some very odd looking paper was made. The story goes that they sold the paper at an increased price as a specialty, but I never heard if they had a repeat order and whether a copper dipper had to be included in the furnish in future runs.

Condition of the Equipment Important

In order to secure clean paper all equipment which comes in contact with half stock must be in good condition. Dirt coming from poor equipment generally comes spasmodically, and is due to the breaking away of rotten wood, and getting grease into the stock from pumps or bad bearings. Elimination of this type of dirt means an unending hunt for, and the repair of faulty equipment before it gets into a condition to give trouble.

What applies to the beater room with regard to cleanliness equally applies to the rest of the mill. The broke made on the machines and in the finishing room can be the source of a great deal of dirty paper, and it is very difficult to keep dirty broke separate from the clean unless it is handled at once.

Once paper is made, any dirt added to it is generally a matter of lack of care.

The Importance of the Finishing Operations

The last operation with regard to the elimination of dirt is the sorting of paper containing an undue amount of dirt. Of course, even with the greatest care a certain amount of dirt gets through to the sorting room, but every sheet thus sorted out is a direct loss. By careful analysis of the quality and quantity of dirt you can generally go back and remedy the source of trouble.

The neck of the bottle in the fine mill is the finishing room, Orders, as a rule, are smaller than in the mills making coarser grades of paper, and a great number of different finishing operations are often necessary. In many fine mills several hundred finish orders are handled every week, a large quantity calling for different treatment. The only way to handle these is by some systematic method of planning the sequence of operations, and a very close follow-up to see that none of the loads fall by the wayside. In addition to this there must be a complete system of inspection of the finished product, in order to catch any defects which may have slipped through.

One method of handling continuity of operation is for a load of paper leaving the dry loft or cutters to carry a load tag showing the sequence of operations, the type of finish, trimming size and packing instructions, so that the load goes through as an independent unit. In the case of orders consisting of several loads, the number of loads in the order, and the number of the specific load is on the load tag, so that in any operation where it is desirable to finish the whole order at one time, the foreman can see at a glance, whether the whole order is complete. Each foreman should also have a running list showing the quantity of orders, the type of finish he is to expect, and the rough sequence in which he is to expect them. With these two aids and close checking from the planning department material goes through smoothly and in order.

Finishing operations consist, in the case of loft-dried bonds and ledgers, of conditioning or bringing the paper to the right temperature, the breaker or sheet calender finish, sorting, trimming, counting, inspecting, sealing and packing.

The technique of finishing is too involved to try to cover it in this paper so I will touch lightly on some problems which are common to all grades in the finishing room.

Conditioning the Paper

One of the most important factors in finishing is conditioning, which is having paper of the right temperature and moisture so that it can take the proper finish with the minimum broke being made.

The proper temperature and moisture can only be maintained by humidity control. In summer the humidity is high enough to enable paper to be handled easily, but in winter unless a humidity control is installed there is usually trouble with static electricity. Static can be eliminated more or less by numerous devices, but a reasonably moist atmosphere so that the paper will contain about 5 or 6 per cent moisture will enable paper to be handled easily at all operations with a minimum of broke, and will also insure the shipping of paper at a moisture content which will assist the printer or converter in handling it to the best advantage. Static is the cause of a lot of trouble to printers. Many troubles laid to curly paper are really caused by static, as the sticking together of the paper hinders the feeding in a press so much, that it gives the appearance or curl, although the paper will not react to the usual curling tests. In cases of this description the trouble can be remedied in the print shop by raising the relative humidity in the vicinity of the press, but it is undoubtedly better for the paper to be shipped at a moisture content that will minimize this trouble.

In addition to the humidity control of the air, different finishes require different degrees of moisture content which moisture has to be supplied either by making the paper with the required amount or by sweating it to the necessary point.

Plated finishes need moisture of varying degrees relative to the degree of cut and two-tone effect required, and it is a difficult matter to get the moisture correct, at first and then to hold it uni-

formly until the finishing operation is complete, especially as paper in the load changes its moisture content first at the edges.

Provided the paper is made correctly, conditioning for finishing is one of the most important factors common to nearly all fine papers, inasmuch as it helps handling and to a great extent limits the degree of finish and leaves the paper in the best condition for the customer.

The Broke Problem

Broke in the finishing room is a large factor in the economical production of fine papers. Primarily the most of the broke in any department is caused by the shortcomings of the preceding operation, that is, if the preceding department turned out a perfect product very little broke would be made by the subsequent ones. *Cutter broke* outside of the trim would be small if the machines sent through a perfect reel. *Sheet calender broke* would be small if the paper from the loft came one-hundred per cent. This condition of perfection is rarely attained, and the reduction of broke is controlled by the skill of each department in finishing paper which comes to them in an imperfect condition. Practically all alibis refer to the preceding operation, but a department must be judged on its ability to handle difficult problems and not on its ability to "pass the buck." Few departments, however, are so modest as not to boost the ability of their own department to the detriment of preceding ones. However, complaints about the condition of paper coming into a department undoubtedly helps to keep the preceding department up to the mark.

Provided paper comes to a department in reasonable condition the individual skill of the finishing operative to a great extent governs the amount of broke. The skill of the foreman in making the best of the varying conditions of different lots of paper, of course, has a large influence on the results obtained.

Labor turnover, or the moving of operatives from one class of operation to another, or the changing around of operators and machines, all tend to increase broke and reduce quality.

It is very easy for a green operator to spoil a greater value of paper in an hour than he or she could earn in a month. For successful operation it is of the utmost importance to keep your crews as nearly intact as possible.

Inspection and Sorting

Practically all high grade papers are sorted and it is a matter of long experience to hit the happy mean and not leave imperfect paper mixed with the perfect and vice versa. In sorting, many different factors have to be considered, such as what the paper is to be used for, what defects will come out afterwards in the load, and what defects must be sorted out. A periodical examination of the sheets sorted out will tell the superintendent if too much perfect paper is going into broke, while the routine inspection of perfect paper will tell if too much imperfect paper is going into the perfect.

The inspection of paper after the last operation is very important in the finer grades. This should insure that the paper leaves the mill in good condition and is a check on all finishing operations and incidentally catches a number of manufacturing defects. The inspection will tell the superintendent how efficiently the mill is operating, and will enable him to bring to the attention of any department any undue amount of errors it is making.

In addition to the inspection at the sealers, it is well to keep records of the quality of every finish order coming through. This is a check against faulty paper getting out, and a means of telling whether any complaint made by the customer is justified.

The department handling this work has to save samples from every finish order and make necessary tests to insure it is up to standard.

The Tests to Be Made on the Paper

Bonds and ledgers should be inspected for tear, pop, color, formation, dirt, watermark, curl, ink resistance, finish and evenness of caliper. These tests cover nearly all the qualities desired in these papers. Color, formation and watermark have to be matched against a standard for these qualities, whilst the other tests can be carried out mechanically. In the case of finish I do not know of any very accurate mechanical means of testing, as most instruments measure gloss or polarized light, while bond finish consists of both gloss and feel. A paper which feels smooth often tests low for finish and vice versa as the instrument does not take into account felt impression and other marks which do not interfere greatly with the reflection of light. This machine is of value however when testing high finishes.

In the case of papeterie papers there are other factors to take into account—namely—a great variety of finishes, also the folding qualities, it being essential that papeterie papers fold without cracking.

There are numerous other defects that are sometimes found in high grade papers, but by and large if a paper is up to standard in the foregoing qualities it will be correct in its major features. The method of getting papers up to standard, and the method of manufacturing them, and then getting better than the standard, and so on *ad infinitum* are the major concerns of the fine paper mill superintendent. Every other factor is subordinate to the purpose of turning out the best paper in the most economical manner.

Control of Decay in Pulp and Pulpwood

WASHINGTON, D. C., May 27, 1925.—Losses occurring in paper and pulp mills as a result of the action of fungi on stored wood and pulp can be reduced by improving storage conditions, says the Department of Agriculture. An extensive study made by the Forest Service, in cooperation with the Bureau of Plant Industry, to determine the extent of the decay in pulpwood, the cause, and the remedy, has brought out information expected to be of great value to the pulp and paper industry. The results of the study are set forth in Department Bulletin 1298, Control of Decay in Pulp and Pulpwood, now available for distribution.

The continued depletion and approaching exhaustion of pulpwood forests in the Northeastern and Lake States, coupled with the possibility of a Canadian embargo on pulpwood—1,050,000 cords are now imported annually from the Dominion—constitute a major forestry problem of the present day. It is becoming increasingly important that needless losses of our pulpwood resources be eliminated. Bulletin 1298 aims at the reduction of losses occurring during the storage of pulpwood and pulp; a considerable proportion of which can be saved by slight changes in mill practice.

A group of 33 interested mills subscribed to a fund which enabled the Forest Products Laboratory of the United States Department of Agriculture to assign two pathologists and two chemists to the study of which Bulletin 1298 is a first report. The effects of both the fungi which merely discolor pulp—molds—and the true wood destroying fungi are discussed together with chemical deterrents and their application and methods of yard sanitation.

National Wood Utilization Committee Busy

WASHINGTON, D. C., May 25, 1925.—A large quantity of data is being accumulated and tabulated by experts of the Department of Commerce in anticipation of the beginning of the work in connection with the National Wood Utilization Committee recently appointed by Secretary Hoover.

The Secretary is scouring the country for a high class man to take the position as Director of this Committee. E. E. Hunt attached to the Department of Commerce is acting as secretary of the committee and is doing much of the preliminary work. It is expected that the secretary will announce the appointment of a director within the next two or three weeks. A gift of $25,000 per year for two years, has been allotted to the Department by a donor whose name is withheld. It is believed that with this sum some very efficient work can be carried on in conjunction with the facilities of the Department of Commerce.

Straw Board and Straw Paper*

By H. G. Funsett, Assistant General Manager and Superintendent, Hager Straw Board & Paper Co., Cedarville, O.

The manufacture of straw paper and board occupies a rather picturesque and unique position in the paper manufacturing industry. In order to understand more fully this position it is well to take a bird's eye view of the straw paper industry, both as to its relative importance at this time, and the position it occupied in the past in the history of paper making.

During the early history of our country when paper making was in its infancy the only raw material known and used was rags. Paper was a very scarce article, due to the scarcity of rags, as well as the slow laborious hand methods used in the transformation of rags into paper. The dire necessity for more paper and consequently some other material than rags from which paper could be made, led to experiments and research, which resulted in the discovery, that paper could be made from other substances. In 1827 an old mill in Chambersburg, Pa., noted for its fine paper making, made paper from straw for the first time under the direction of George A. Shyrock. While the experiments were successful, for some unknown reason they returned to rags for raw supply within a very short time.

In 1837 Smith and Bassett succeeded in making straw paper for the first time in Humphreyville, Conn. About the same time two men, Hamilton and Wright, came from Connecticut and started a mill at Chatham Four Corners, Columbia County, N. Y., and started making paper from straw. This mill was for over 50 years famous for its straw wrapping paper made from rye straw.

The third mill successful in this industry was Backens and Wheeler located not far from the Hamilton and Wright mill. These people used 20 per cent rope stock and baggings in connection with the straw paper to make it run better. They also used fire-heated driers for the first time in place of the customary loft drying which was generally used up to this time. In 1845 John B. Davis in Rensselaer County, N. Y., erected a large mill using for the first time a cylinder mold and steam-heated driers. He bleached his straw stock and made paper exclusively from straw. Straw paper at this time was used for wrapping and in many cases for news print. About this time in their frantic search for fibrous material for paper making, various other materials were discovered that could produce papermaking fiber and one by one they were tried, many of them being cheaper than the wheat and rye straw. Hundreds of materials were tried successfully, but the available raw supply was either limited or the cost of preparation excessive. The discovery and perfection of woodpulp for fiber finally revolutionized the entire paper industry and from that time up to the present, wood has continued to supply the greatest part of the paper fiber.

The Possible Future

If anyone is interested in a paper making fibers and the various sources of supply he can do no better than read a very able paper which was presented at the meeting of this association last May in Dayton, by Bertrand S. Summers (see Paper Trade J., July 12, 1924.) Quoting Mr. Summers in part, he says, "I am of the opinion that when the time comes so that the price of pulp will enable the concentration of these raw materials (meaning the cereal straws, particularly rye, rice, and wheat) in sufficient quantities at central points, we will return in a considerable measure to paper made from cereal straws. Owing to the many excellent qualities of chemical wood pulp these above mentioned pulps will always have a fixed economic relation to wood pulp and their utilization will be governed by this relationship."

Nevertheless straw has continued to have a place in the paper industry and its use has been gradually enlarged during the past 25 years. With the decreasing wood supply and the grave possibility of a shortage of wood pulp in the future there are people who now prophesy a return of cereal straws for a considerable part of paper making fiber until the wood supply can be replenished.

While straw was eventually abandoned for printing papers due to the discovery of wood pulp it has continued in use for certain kinds of wrapping, board of various weights and for .009 straw paper which is used exclusively for the inner bridge of the corrugated paper board used for boxes.

Geographical Distribution of Straw Mills

While the earlier straw paper mills were established in the Eastern Atlantic States they have gradually moved westward and at the present time are found in the Central States: Ohio, Indiana, Illinois, and Michigan, wih a few scattering mills in Iowa, Kansas, and New York. This movement has been due to the raw supply of straw which is more abundant in these states. The boxmaking factories have also been established through these states. There are at the present time 25 straw paper mills in the United States with from one to four machines making .009 straw paper which is used for corrugated boxes. These mills represent a production of 1,000 tons of .009 straw paper in 24 hours. There are 17 mills in the United States with from one to four machines, each making a heavy straw board ranging from caliper .015 to .021 in thickness. These mills represent a production of 400 tons in 24 hours.

Present Uses of Straw Paper

The growth of .009 straw paper manufacturing is largely due to the increasing use of corrugated paperboard boxes for shipping containers. These boxes have considerable strength and are replacing very largely the wooden boxes, due to the scarcity and consequent high prices of lumber. These corrugated boxes are also proving to be superior to wooden boxes in that they are lighter in weight and can be shipped and stored in a compact and small space. More important than all they deliver the goods to the consumer unbroken and in good shape. The Interstate Commerce Commission specifies that these corrugated boxes must be made from certain grades of paperboard and the inner corrugated sheet must be straw paper of .009 caliper and have a weight of from 34 to 38 pounds per thousand square feet.

The heavier straw boards are used for solid fiber boxes, also used for shipping, eggcase fillings, tablet backs, bottle stoppers, fireworks containers, mailing tubes, etc.

Preparation of the Straw Pulp

The details of the preparation of cereal straws for paper or board manufacture depends upon the product and the raw material. The heavier boards can use oat straw. The .009 paper to be used for corrugating should have wheat or rye straw. Oat straw makes a soft sheet and the rice straw, I have understood, does not have the desired tensile strength. In any case the straw is cooked in rotary cookers or digesters with some disintegrating chemical or materials. Sulphate cooking has been tried but the standard material that seems to prevail is lime in the form of milk of lime or hydroxide. The digesters are usually of a heavy boiler construction about 14 feet in diameter with a capacity of from 6 to 7 tons of dry straw. The cooking which is done under steam pressure takes from 8 to 12 hours, depending upon the pressure. If live steam reduced to 40 pounds is used, 8 hours cooking time is required. If exhaust steam at 25 pounds, 12 hours cooking time is required.

Lime

The amount of lime used depends largely upon the quality and

* Delivered at the annual convention of the American Pulp and Paper Mill Superintendents Association, Niagara Falls, N. Y., June 4, 1925.

condition of the straw and the analysis of the lime. A magnesium lime requires a larger quantity than the calcium lime. I cannot recommend a high calcium lime because it is so hot and active. The danger lies in the action of this lime being too intense. On the first straw it touches it spends itself; therefore, the remainder of the straw will be undercooked. This would make the pulp very uneven and some fiber would be destroyed. My experience has shown that a magnesium lime with an analysis of magnesium oxide 42 per cent and calcium oxide 56 per cent, impurities and other elements 2 per cent, requires 240 pounds of lime per ton of dry straw, while a calcium lime with an analysis showing calcium oxide 80 per cent and magnesium about 20 per cent requires only 178 pounds of lime per ton of dry straw. The above shows a difference of 62 pounds per ton of straw or a saving of 25 per cent. Care must be taken that the lime is well slacked; a slow slacking lime is in danger of underslacking unless watched carefully.

The success or failure of good straw paper manufacturing depends to a very large extent upon the successful cooking of the straw. In order to make consistent good production the cooking should be so standardized that the mill is always assured of uniform well cooked stock. The cooking can be overdone as well as underdone and either will cause trouble. This excessive use of lime is also detrimental in that the time of washing will be increased and the lime will carry over into the sheet and fill up felts and wires. For cleaning felts and wires we consider a fair standard quantity of 18° Muriatic Acid to be used is 0.2 gallon per ton of straw used.

Cooking

In order to manage successfully a Rotary or Cooking Department the management should have some check on the steam consumption, also a record of the pressure maintained in the rotaries. A steam flow meter should be installed in the main steam line and each rotary or digester should have a recording steam gage. These gages are invaluable when it comes to checking causes of trouble. We have found since these have been installed that any trouble can always be traced to the cause. We also find them a check on the human element responsible for the successful operation of the rotaries. The great number in this department at night when the digesters are turning and straw is cooking is to keep men awake on the job. At times mistakes have been made due to this cause. The steam has been turned off too soon or the rotaries have been blown too soon causing undercooked stock. The recording steam pressure gages have told the story. The gages have been nicknamed "watch dogs" as a result.

After the straw has been cooked and the pressure released, the rotaries are emptied by dumping the contents into a drag chain conveyor, which carries the stock over into a store room or stock room. This store room should be large enough to hold, if possible, about a 48-hour supply of stock. We find that the paper runs better if the stock is allowed to cool before it is used.

Washing and Beating

The next step in the operation is the washing and beating. The most common type of wash is the octagonal screen covered rotating prism type. The beater is filled with water and stock is thoroughly mixed and circulated. The washing is the first operation and removes the lime and the non-fibrous substances of the straw. Each beater usually has two washers. The front washer is raised after one half hour of washing and the back washer after about 2 hours of washing. The time of washing will depend upon the ease and the rapidity with which the lime washes out of the stock. After the beater is furnished the beater roll is lowered to a light brush. In this condition the stock is usually beaten for about 2 hours. Then for the final beating and finish the roll is again lowered. The distance depends upon the stock. As soon as the fiber is beaten to the desired fineness the beater roll is raised and kept up until the beater is finally dumped. The total time of beating is about 3 hours with a total washing time of about 2 hours.

The usual practice is to empty these beaters into a stuff chest which holds 2 to 3 beaters of stock. The stock is then kept in a state of agitation and kept thoroughly mixed. From this chest the stock flows or is pumped to the jordans which give the final finish for the machine. In some cases the chest holding 2 or 3 beaters is located between the jordan and the machine and in some cases another jordan is used between the second stuff chest and the machine.

The washers in the beaters are usually covered with 44 to 46 mesh brass wire cloth. Recently a fine perforated brass sheet for washer covering has been developed which seems to answer the purpose very well and is superior in strength to the wire screen covering.

The beater rolls in a straw paper mill have a real job to perform and the beater fly bars and the bed plates should be kept in the *best of condition*. I have found that the corrugated heat treated fly bars are very good. They do a fine job of beating and are very rugged. Occasionally bolts, pieces of chain, wire and other foreign material will find its way to the beaters. This material is hard on beater fly bars. The corrugated fly bar takes care of itself very well with very little damage under these conditions. I have also found that the elbow bed plate made from a softer steel than the fly bars works the best in connection with a heat treated fly bar. It is easier and much cheaper to replace bed plates than fly bars. The softer bed plates will take the wear and at the same time keeps the fly bars sharp and in good condition. The most efficient and economical speed for all beaters is 1,750 feet per minute, surface speed. Anything above this speed will increase the power consumption without a comparative increase in efficiency.

Making the Paper

The final process, that of the forming of the sheet is similar to the usual board making practice. The .009 paper is heavy enough so that it can be made on a single cylinder board machine and is also light enough so that it can be made on a fourdrinier machine. There are two fourdrinier machines in this country making .009 straw paper. The rest of the paper is made on cylinder machines. The problem of sheet formation, removal of water, and the drying of the sheet is no different from that of other paper and board and, therefore, does not have a particular place in this paper.

The Press Rolls

The .009 straw paper sheet is somewhat difficult to handle and is very sensitive to slime. It is, therefore, necessary to keep equipment scrupulously clean.

The sheet also demands very careful selection of rubber press rolls for the best removal of water. Any type rubber press roll for the first press should not be softer than No. 36 plastometer reading. The extremely soft rubber press rolls will not do for .009 straw paper. We have heard a great deal about soft rubber rolls and no doubt they are good on thin paper where water removal is not so difficult. Soft rolls no doubt save felts but the first duty of a press roll is to remove water. If the press rolls do not remove water the driers must and your steam consumption goes up accordingly. A top rubber press roll on the first press next to the paper, whose plastometer reading is higher than 38 points on a ⅛-inch ball plastometer will not allow sufficient weight to remove water without having what paper mill men call "runner heads." That is, the paper will creep under the roll due to the give in rubber and will cause the sheet to break down some place between the first and second presses.

The following shows the performance of two press rolls on the same first press at different times but with the same working conditions. Press roll No. 1 whose plastometer reading showed 42 points removed water from the .009 straw sheet so that we needed 5 pounds steam on the wet end of driers and 20 pounds of steam on the dry end of driers. Press roll No. 2 whose plastometer reading showed 52 to 35 points removed enough more water so that we needed only 1 pound of steam on the wet end of driers and 5 to 10 pounds on dry end of driers. The wear on felts was about

the same as far as we could see and judge from tonnage figures.

Tests for the Paper Needed

The usual paper tests such as the Mullen Tensile strength tester does not have much actual use in a mill manufacturing exclusively .009 straw paper. The test most needed for this paper beside the usual caliper, weight, and the moisture tests, is a test that will show the strength of the bridge in the corrugated sheet. Up to the present time no standard has been developed for this. The only test now is the crushing test of the finished corrugated sheet made up from the straw paper and the two facing sheets.

Stream Pollution Problems

In connection with the washing of straw pulp, straw board mills throughout the country have been experiencing some difficulty in the disposal of this wash water. The usual practice has been to dump this water into the adjoining streams. This waste water contains lime and the soluble vegetable, non-fibrous part of the straw, and through fermentation causes difficulties in the streams. This stream pollution problem is up to the present date unsolved. Various attempts have been made to treat this water in order to settle out the above mentioned material. Attempts have been made to legislate against stream pollution from this source, and have caused paper mills trouble, worry, and expense. The magnitude of the problem is such that there is material enough for a paper more lengthy than we have time for at present. This stream pollution problem has been the cause of many abandoning the manufacture of straw paper and turning to the less troublesome manufacture of other boards such as chip, jute, etc. The usual practice up to the present time is to store this waste water in reservoirs allowing the water to seep away through the ground, evaporate, or to be disposed of during the winter when the low temperature of the water in the streams prevents fermentation. However, we expect to have in the near future some scientific data and we hope a solution to the disposal of strawboard wastes. All paper mills throughout the entire country will sooner or later have similar problems. Many mills in Ohio, Michigan, and Indiana, are about to face them now.

Future Looks Bright

In conclusion, the future of the straw paper manufacturing industry looks bright. The increasing demand for corrugated boxes should give the mills in the middle west enough business to keep them busy. There is still a large supply of straw going to waste in the West and in Canada. No doubt sometime in the future paper mills will be built near this available supply and will make straw paper for news print. In a recent issue of the PAPER TRADE JOURNAL there was an account of an English morning newspaper being printed on straw paper. The account stated that this is the first time in English history that the same had been done and according to the *London Morning Post* it promises to revolutionize the papermaking industry.

The relative costs will always be the determining factor, but nevertheless the above news is of interest and will continue to be a speculation for a few years to come.

A Fortunate Student

Having graduated in Engineering at University of London, England, J. A. Clark had the good fortune to be awarded a Robert Blair scholarship which entitled him to study abroad the technology of any industry he might choose.

As Mr. Clark had been engaged in various capacities with Edward Lloyd & Co., Ltd., he has chosen to follow the pulp and paper industry. He has already spent several weeks in Canada visiting the news print mills and familiarizing himself with the new developments, and is now seeing some of the mills of United States. Mr. Clark speaks very enthusiastically of the mills he has seen and the reception he has everywhere received.

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Deterioration of Walls in Sulphate Mills

SPECIAL INQUIRY No. 27

For some time we have had considerable deterioration of the brick walls of buildings adjacent to the sulphate pulp mill through the bricks crumbling. I would be glad to know if others have experienced the same trouble and what they have done to prevent it. The question might be put in this way:

1. What has been the experience of sulphate pulp manufacturers with walls of buildings adjacent to the sulphate mill and recovery plant?
2. Have they shown excessive deterioration?
3. If so what chemical action do they find as the cause?

What methods have been applied as a remedy and with what result?

This inquiry will be handled in the usual way under the Service to Members plan, and a transcript of the responses distributed in blank to those who participate. THE SECRETARY.

Corrosion of Evaporators for Black Liquor

SPECIAL INQUIRY No. 28

The writer is very much interested in obtaining information which would result in the solution, if possible, of the corrosion problem in connection with evaporators in the sulphate industry.

There seems to be a lack of information in the literature along this line with particular reference as to just where the corrosion takes place, whether on the inside or outside of tubes, in just what effects in a multiple effect evaporator it takes place, and whether it is along the full length of the tubes or at some definite point such as the condensate level at the bottom of a vertical tube machine. There seems to be a lack of information, also, as to whether this corrosion takes place in the horizontal tube machine in all of the tubes evenly or in some tubes near the top or bottom.

The following is an outline of the information which we have been trying to get together in order to check the results from the various mills, practically all of which is necessary in order to check these results with any degree of accuracy.

Suggested Method of Noting Information

A. Soda, Sulphate or Modified Soda.

B. Brief description of type evaporator in use.

1. Vertical or horizontal tubes (rolled or packed).
2. Number of effects.
3. Materials of construction with particular emphasis on tubes and tube sheets.
4. Order in which liquor is fed to various effects.
5. Temperature range (initial pressure and final vacuum).

C. Location of points of corrosion.

1. In which effects.
2. In which tubes in these effects.
3. At what point or points on these tubes (Be very specific on this point).
4. Corrosion at other places.

D. General considerations.

1. Replacement period for corroded tubes.
2. Results of any specific investigations as to materials best suited for this work such as trial of copper, charcoal, iron, steel, etc.
3. Effect of changes in chemical composition of liquor if any.
4. Experience on this work not covered by any of the foregoing.

This inquiry refers to multiple effect vacuum evaporators in sulphate pulp mills although they are employed more extensively in mills making soda pulp. If corrosion is noted in the disk evaporators common to sulphate mills, the data on it is also requested.

The inquiry will be handled under the Service to Members plan and those who participate will receive a transcript of all the replies in blank. THE SECRETARY.

Digester Linings of Past and Present

By Otto Heijne, Ch. Eng., Appleton, Wis.

One of the greatest difficulties in the development of the sulphite process has been the construction of the digester and, especially the development of a suitable lining. The extremely corrosive action of sulphurous acid and bisulphites upon iron requires some form of lining to protect the digester shell. Iron and steel are very susceptible to corrosion by the acid and more especially at the high temperatures and pressures employed in the cooking process.

Overcoming Adverse Conditions

To overcome this adverse condition, Tilghman, as well as Ekman, covered the interior of the digester with a lining of lead which resists perfectly the action of the sulphite liquors. With the small Ekman digesters of about 700 pounds capacity, the use of lead proved satisfactory in protecting the steel shell, but with large digesters, the difficulties due to the difference in expansion of the lead lining and the steel shell were very serious since lead does not, upon cooling, resume its original dimensions by virtue of the sluggish movement of its molecules. This causes the phenomenon known as "crawling," the lead showing a tendency to pull away from any point at which it is held.

Cracks Likely to Develop

Owing to the continual movement due to varying temperatures during each cooking period, cracks are likely to develop where the lead makes a short turn. The crack does not come at just the point of turning, but parallel with it and a little to one side.

The whole object of the many ingenious mechanical devices which have been embodied in the lead linings of sulphite digesters was to hold the lead in place while at the same time localizing and diminishing the tendency to crawl. The thickness and weight of the lead employed varied widely, from the 6-lb. lead used in the Mitcherlich process to ¼-inch lead weighing 48 lb. to the square foot which at one time was used in several mills in this country.

Digesters Built of Bronze

The difficulties invariably connected with the use of the best lead linings led to the introduction of digesters built of bronze (90 per cent copper and 10 per cent tin, capable of resisting more or less perfectly the corrosive action of the sulphite liquids. These digesters were usually built of the cast metal in 3-foot sections having in some cases a diameter as great as 9 feet; the joints between sections were made tight with lead gaskets. It is true that all such digesters were corroded to a considerable extent by the hot liquor and were also subjected to other and perhaps more serious elements of weakness. Tests have shown that the strength of the metal was, in some cases, reduced fully 40 per cent by heating to the temperatures reached during the cooking period, while the frequent changes of temperature caused in time a crystallization of the metal which greatly impaired its power to resist strain.

Looking for Less Costly Process

The expense and difficulty which was encountered in the operation of even the best types of lead-lined digesters caused the chemists and others engaged in the development of the process to look for some other means of protection which would prove more manageable and less costly.

One of the earliest attempts in this direction was made about 1883 by Brungger, who for some temporary repair work substituted in a digester, a short length of iron pipe for a bronze one by which steam was ordinarily supplied. Upon examining this pipe at the end of the cook, he found it firmly coated with a thin but dense scale of calcium deposits which had apparently protected the metal from corrosion. Acting upon this hint, he soon had a digester in operation in which by appropriate means, this scale was formed over the entire interior as a substitute for the lead lining previously in use. It proved necessary in order to secure the coating, that the heat should be transmitted through the metal to the liquor inside; and for that reason, digesters of this type were heated by a steam jacket.

In order to secure the protective coating, the pressure in the jacket was brought up to about 40 pounds before the liquor was admitted. The liquor when coming in contact with the hot metal was partly decomposed and there was deposited over the metal a thin but excessively hard and impervious crust of calcium monosulphite. After each successive cook, the scale increased in thickness, and was oxidized to sulphate in contact with the air. But while the acid-resisting quality of this lining was quite satisfactory at that time, the lining would at times break off, and with the strong acid employed today, it would be difficult to obtain a satisfactory crust.

Early Cement Linings

One of the earliest cement linings employed in the manufacturing of sulphite pulp was that of Wenzel. By his method cement blocks were formed in wooden molds made to conform to the shape of the different portions of the digester, and were then assembled and cemented in place inside the digester. The special cement used was a mixture of "schamotte" powder and hydrated lime with silicate of soda (37° Be.). The thickness of the blocks varied with the size of the digester and the position for which the blocks were intended; those for the bottom of the digester were made thicker to withstand the greater wear.

After a lining by this system, the digesters were heated with steam for several hours, to a temperature of 140° to 160°C. By this treatment, cracks were opened in thin or weak places and were cut out the refilled. The heating was then repeated until no more cracks appeared.

G. F. Russell about 1888 began experiments with cement linings, applied directly to the shell in the plastic state. The special cement used for this purpose was a mixture of Portland cement and sand; in the most cases, however, reinforced by a facing of special bricks or tiles.

Present Method of Lining

The present method of lining in this country is largely the result of work by Russell.

There are generally two layers of brick, the first separated from the shell by 1 to 2 inch thick backing, consisting of Portland cement and crushed quartz (1 part cement, ½ part fire clay and ½ part quartz) mixed with a 4° Be. solution of silicate of soda and water. Against this backing is laid two courses of brick in a mixture of cement and quartz and silicate of soda. The face of course must be carefully selected of acid-resisting brick, with a resistant joint-stock consisting of 1 part litharge, 1 part cement, ½ part quartz and glycerine with a small proportion of silicate of soda. The thickness of the entire lining varies with the size of the digester from about 6 inches for digesters of 11 to 12 feet in diameter up to about 8 inches for digesters having a diameter of 15 to 16 feet.

The present cement linings do not, however, entirely resist the corrosive action of sulphite liquors, the litharge joint is likely to be defective due to its lack of elasticity, etc. Any acid that might work through a crack or defective joint will not only react with the lime salts in the cement but also cause a crystallization of these salts in the lining. At the point of attack the face-bricks will loosen and fall off.

An Ideal Lining

Consequently, it has been the desire of the sulphite pulp manufacture to find a lining which would prove practically indestructible.

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An ideal lining would be one giving:

1. Complete protection of the digester shell.
2. Increased life of the lining.
3. Increased yield per cook effected by thinner brickwork and consequently increased net volume.
4. Saving in maintenance and repair.
5. Saving in time used for repair.

The experiences from a great number of sulphite mills in Europe during a number of years have proven, beyond any doubt that such a lining is on the market and furthermore, it has shown to be superior to anything previously used by virtue of its elasticity and wonderful acid resistant qualities.

Quite recently a few installations of this kind were put in successful operation in some of the largest Wisconsin mills, where it has been demonstrated in practical operation that the resistant qualities of the cement to the corrosive action of the sulphite liquids are more than remarkable and also that the output per digester has increased in one mill from 12 tons to 13.5 tons.

Pulp From Straw or Wood

In an extended article in *Der Papier Fabrikant* recently, in continuing his controversy in regard to the de Vains process with James Strachan, part of which was published in *Paper*, November 13, 1924, Dr. Willi Schacht presents his views of the difficulty of utilizing straw to any large extend for paper making and at the same time makes some very positive statements against the economy of the de Vains process. The following are abstracts:—

Practice will in every respect prove the correctness of my judgment, that wood pulp with its long-fibered structure cannot be replaced completely by the fine, short-fibered straw pulp for the manufacture of paper.

This statement does not at all indicate an inferiority in the quality of straw pulp, but only confirms an essential difference in the kind of fibers of both materials.

In cell structure, straw pulp is much finer and more short-fibered than wood pulp and therefore it is also an especially good material for high grade and superfine papers. On account of its fiber nature straw pulp will produce papers with exceptionally well closed formation, most beautiful transparency, greatest snap (rattle) and hardest feel.

A reason for Mr. Strachan's defense of the De Vains process is that with it the quick growing and supposedly valueless straw will be exploited largely in future and that thereby the depletion of the forests will be avoided.

The economical use of straw for the paper industry was already possible for scores of years before the De Vains Process existed and was also always utilized. Germany with her highly developed land cultivation in the last 50 years has developed a quite considerable straw pulp industry. In the jubilee number of the German Paper Maker's Association 1922 (Verein Deutscher Papierfabrikanten) I reported on this subject in detail. The manufacturing processes, satisfactory up till now, have been making progress steadily and are even today able to compete with the De Vains process both economically and with regard to the quality of the pulp.

If up till now all the straw of the world and all the plant vegetation of the tropics are not yet used for the making of pulp, the cause will not be found in the reason that there was no useful manufacturing process up to the present, as these have existed already for a long time, but because it was and it still is today not possible, to use these raw materials wherever they grow, for the making of pulp with economic profit and even the De Vains Process cannot change these conditions.

The consideration of the American conditions shows the best example and gives the best idea. In the United States, for example, cereal straws are even now not used for making pulp, but this material—as far as it is not used for other agriculture purposes, is again plowed into the ground immediately after the crop is harvested, serving in this manner to loosen the soil, and as fertilizer, or else the straw is burned on the fields, thus fertilizing the earth through its ashes.

The consumption of straw in this way does not pay the farmer very much and it means the destruction of raw materials of value for the paper industry. To improve conditions, the straw, as is done in Germany and other countries, would have to be stored in bales immediately after the crop is harvested, in order to protect it from any unfavorable atmospheric influence. A large straw pulp mill, however, would be compelled to get the straw at considerable expense for freight, since, according to proofs at hand, the quantities of straw harvested even on the best developed farms are, in respect to weight, comparatively small, and for this reason the crops of several states may be required to supply a modern pulp plant.

The farming conditions in America, which are very different from those in Germany, will result in increased labor and freight costs and make the straw, in its production, pretty expensive Finally, it must be borne in mind that straw, even in most strongly pressed bales, is and will always be a bulky material. The high freight rates as well as the cost of collection and baling the straw have brought up the cost of this material so high that, as a stock for the pulp industry in America, for the present it cannot stand competition with wood. Wood must become considerably more expensive before the use of straw for pulp would pay in the United States.

The depletion of forests will, however, not be stopped, because straw pulp will only serve in the future for helping to supply material for certain kinds of fine and superfine paper. For the large group of wrapping papers and for the many kinds of papers with high ground wood percentage as well as for some other grades, the strong, long-fibered wood pulp will certainly be used as formerly in large quantities.

I presented this opinion nearly twenty years ago in the American Expert Press (Convention Number 1907 of the PAPER TRADE JOURNAL, New York). Up to the present I have not taken a different viewpoint regarding straw pulp and I doubt that the De Vains chlorination process with its low yields of pulp opens any specially successful new ways for exploiting useless raw materials with good profit for the making of paper.

"Cleveland Type" Collar Oiling Bearings

The Hill Clutch Machine & Foundry Company, Cleveland, Ohio, has just issued Bulletin No. 112 calling attention to the patented Cleveland Type Collar Oiling Bearing.

The positive oil feed and distributing system immediately starts a forced oil circulation. A heavy unbroken oil film is maintained which lifts the shaft free from all metal contact. Naturally there is no wear, and being a truly film born bearing the efficiency is extremely high. The bearings require attention only a few times a year when fresh oil should be added. They are capable of withstanding exceptionally heavy pressures due entirely to the oil film.

The Cleveland Type bearing is supplied in all styles of rigid and ball and socket mountings, adjustable four ways.

The Hill Clutch Machine and Foundry Company, Cleveland, Ohio, manufacture this bearing exclusively and will be glad to forward printed literature to anyone interested in the subject of efficient and economical line shaft bearings.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

Clarence J. West, Chairman

Cellulose

Formation of Hydrocellulose. H. Gault and B. C. Mukerji. *Compt. Rend.* 179, 402-405 (1924). Dilute sulphuric acid up to 5% has no action upon cellulose at ordinary temperatures, even after 4 mo., unless the treated cellulose is dried; upon drying, degradation of the cellulose takes place in proportion to the concentration of the acid. Immersion of cellulose in acid in concentrations up to 50% at 65 to 90° C., followed by washing and drying, causes degradation which varies with the concentration of the acid and the time of immersion.—C. J. W.

Notes on the Preparation of Standard Cellulose. II. A. B. Corey and H. LeB. Gray. *Ind. Eng. Chem.* 16, 1130 (Nov. 1924). If, before drying, the cellulose is treated with 1% acetic acid solution for 2 hr. at room temperature and then washed with four changes of distilled water, the ash content is reduced to a very low quantity without any apparent injurious effect on the cellulose. The percentage of alpha-cellulose can be increased slightly by boiling with the 1% sodium hydroxide solution for 10 hr. instead of 6.—A. P.-C.

Raw Materials

Some Researches on Pulpwood. Rudolf Sieber. *Pulp & Paper* 22, 1165-1168 (Nov. 13, 1924). A discussion of the relation between density, volume and water-content of wood, and of the effect of water content on the yield of pulp.—A. P.-C.

Pulping Qualities of Fire Killed Wood. *Paper Trade J.* 79, No. 19, 47-51 (Nov. 6, 1924). A considerable number of cooking experiments was carried out to determine the pulping qualities of fire killed spruce and balsam fir. The method was to ascertain suitable cooking conditions for the green material and to adjust these conditions to the cooking of the fire killed material until a satisfactory product was obtained. The technique and apparatus used, including a small experimental flat screen, are described in detail. The results indicate that cooking fire killed wood with a normal acid at a medium temperature and for a fairly long cooking period gives a good, strong, hard bleaching pulp. By keeping total SO_2 constant and raising combined SO_2, an undercooked pulp is produced. Increasing the strength of the acid by raising combined SO_2 gives a good yield of high grade, strong, easy bleaching pulp.—A. P.-C.

Papermaking Value of Cotton Stalks. William Raitt. *Paper Maker & Brit. Paper Tr. J.* 68, 407 (Oct. 1, 1924). Pulp of moderate quality and good bleached color was obtained in 25.8% yield with a consumption of 20% of caustic soda and 6.6% of bleaching powder. The remarkably good whiteness was spoilt by light brown specks from the cuticle bark, which cannot be detached before treatment and which can be destroyed only by a treatment which would also destroy most of the useful fibers. Kraft pulp of poor strength was obtained in 55% yield with a consumption of 15% caustic soda. The only fibers of any value in the stalk are those of the inner bark, which average 3 mm. in length; but they are present in too small a proportion to redeem the quality of the mass, consisting of wood fibers averaging 0.5 mm. The material is considered to be of no practical use for paper making.—A. P.-C.

Papermaking Tests with "Ako". Heim. *Paper* 27, 1064 (Sept. 1924). Ako (*Antiaris africana*) from Ivory Coast gave 32% of bleached pulp, without difficulty in digestion or bleaching, which gave dull white, slightly rough and brittle sheets, which had good tensile strength, and fair tearing and folding resistance. It can give satisfactory medium grade papers.—A. P.-C.

Papermaking Tests with "Pri." Heim. *Papier* 27, 1064 (Sept. 1924). Pri (*Funtunica africana*) from Ivory Coast cooked easily giving 32% of yellowish brown pulp, difficult to bleach to a creamy white, soft to the touch, lacking flexibility, with good tensile strength and fair tearing and folding resistance.—A. P.-C.

Tambookie Grass for Paper Making. Results of Soda Pulping Experiments. E. F. English. *So. African J. Indus.* 7, 745-752 (1924). Tambookie grass (*Hyperrhenice glauca* Stent) was pulped on a laboratory scale with a yield, under the best conditions of 46 to 47% of bone dry pulp on bone dry grass. The whole grass contains 58.7% cellulose. The pulp produced is light in color and can be bleached with less than 10% of bleach. The yield of bleached pulp under the best conditions was 44 to 45%. The pulp showed good felting quality and gave a very strong paper. The average length of the fiber of this pulp is 1.5 mm. and the pulp would be of great value for mixing with the short fibered pulps from South African woods.—C. J. W.

Sulphite Process

Chemistry of the Sulphite Process. VII. Effects Producible by Variations in Pressure. R. N. Miller and W. H. Swanson. *Paper Trade J.* 79, No. 16, 48 (Oct. 16, 1924); *Paper* 34, 1194 (Oct. 16, 1924); *Paper Mill* 48, No. 43, 28 (*Oct.* 25, 1924). Additional data are submitted showing that the influence of temperature on the yield and quality of pulp is far greater than any that can be produced by variations in acid concentration obtainable within the permissible range of mill pressures.—A. P.-C.

Some Sulphite Mill Calculations. W. B. Van Arsdel. *Paper* 34, 1184-1187 (Oct. 16, 1924). A collection of formulas and graphs comprising flow of water in pipes, flow of gas in pipes, fittings, bends and changes in cross section, and flow of gas in absorption towers. Cf. *Paper Trade J.* 79, No. 14, 50 (Oct. 2, 1924).—A. P.-C.

Sulphite Process for the Production of Straw and Grass Pulps. Viggo Drewsen assignor to West Virginia Pulp & Paper Co. U. S. pat. 1,511,664, Oct. 14, 1924. The process consists essentially in treating the material, under pressure of 60 to 90 lb. per sq. in., with a solution of a soluble monosulphite (magnesium or sodium), washing, and then treating with an acid solution, preferably sulphurous acid or a bisulphite. When magnesium monosulphite is used, the waste liquor from the first treatment can be treated with calcined and slaked dolomite, thus precipitating the magnesia of the dolomite and the magnesia held in organic combination in the liquor, and the total magnesia is filtered off and recovered by recalcining or by treating directly with sulphur dioxide to convert it into bisulphite for the acid treatment. The latter can also be carried out by passing hot sulphur dioxide gas through a water suspension of the pulp in a tower on the counter-current principle. When sodium monosulphite is used, the soda may be recovered by evaporating and calcining the waste liquor, leaching out with a minimum amount of hot water, precipitating the soda as bicarbonate by passing carbon dioxide through the concentrated solution, filtering, and treating with sulphur dioxide in presence of water to reconvert it into the monosulphite. The process is suitable for the production of high grade rice straw pulp for the manufactuer of cigarette, tissue, Bible paper, etc.; or, by undercooking of cereal straws, for the production of lower grade pulps suitable for the manufacture of newsprint.—A. P.-C.

Sulphite Waste Liquors

Fermentation of Sulphite Cellulose Waste Liquor by Bacteria. E. G. Pringsheim. *Centr. Bakt. Parasitenk.*, Abt. II, 60, 299-309

(1923). When diluted 20 times and inoculated with sheep-, hen- or goat-dung, or especially, leaf-mold, sulphite cellulose waste liquor undergoes fermentation with evolution of gas; this change does not, however, occur when inoculations are made with cultures of the predominant organisms of these materials. The action does not appear to be governed by the bacterial content, since a suspension of the mold freed from the coarser particles is of as little effect as old culture liquid. It depends upon the anaerobic conditions prevailing in the mass of soil or the like situated at the bottom of the liquid. The fermentation is favored by nitrogen compounds, particularly by ammonium sulphate, which increases gas evolution to a maximum when about 0.01% is added. Leaf-mold, which does not lose its activity on sterilization, cannot be replaced by either calcined or uncalcined lampblack, calcium carbonate, quartz sand or talc. The gas evolved contains 57% carbon dioxide, 40% hydrogen and 3% methane and the residual liquid is only slightly viscous and keeps almost inefinitely. Addition of the mold to tap water containing 2% dextrose, 0.1% ammonium sulphate and 0.2% dipotassium phosphate together with sodium bisulphite in varying proportions, results in fermentation, but the organisms involved are butyric acid bacteria different from those which ferment the sulphite cellulose waste liquors.—C. J. W.

Methanol and Ethyl Alcohol from Sulphite Cellulose Waste Liquors. E. S. Sandberg, H. A. E. Nilsson and I. V. Blomquist. Swed. pat. 54,172, Aug. 20, 1924. After fermentation the liquor is evaporated and the vapors are passed through a suitable absorbent, for instance acetic and formic acids, before they are condensed.—C. J. W.

Utilizing Sulphite Cellulose Waste Liquor. H. O. V. Bergstroem. Swed. pat. 56,831, July 9, 1924. At first the liquor is treated for the recovery of free or combined acids, such as sulphur dioxide, acetic and formic acids and others, for instance by distillation, neutralization or both. Then the liquor is evaporated to such a concentration as to give a combustible material; the compressed vapors are used in the evaporation process.—C. J. W.

The Production of Alcohol from Sulphite Cellulose Liquor. Bruno Simmerbach. *Dinglers Polytech. J.* 339, 109-112 (1924). A general historical review and description, with economic data.—C. J. W.

Tanning Material from Sulphite Waste Liquor. M. Melamid. Eng. pat. 220,025, Apr. 27, 1923; addition to 194,723. Sulphite waste liquor, which may or may not have been fermented, or the ligninsulphonic acid obtained by precipitating the waste liquor with salts, such as sodium sulphate, or acids, is treated with an organic sulphochloride to esterify some of the hydroxyl groups in the compounds present. The remaining hydroxyl groups are esterified with benzoyl chloride, acetyl chloride, or like acid chlorides, and the product is used for tanning.—A. P.-C.

Method and Apparatus for Burning Sulphite Waste Liquors. Pradel. *Der Apparatebau* 36, 223-225 (1924). Description of the Perlen and of the Hahn apparatus, with four cuts.—C. J. W.

Utilization of Wood Waste and Sulphite Waste Liquor in Pulp Mills. Carl G. Schwalbe. *Svensk Pap.-Tid.* No. 7, Apr 15, 1924. Cf. *Paper Trade J.* 79, No. 23, p. 58.—P. B.

Alkaline Process

Physical Chemistry of Wood-Cellulose Production. Svante Arrhenius. *Medd. Vetenskapsakad. Nobelinst.* 6, No. 10, 1924. Calculation of data on solubility in sodium hydroxide, sodium sulphide and sulphate liquor solutions of sawdust indicate the reactions to be monomolecular. The reaction constant depends upon the concentration of the solution. With sodium hydroxide solutions at 140° C., solution of incrustants is 28 times as rapid as solution of cellulose; at 170° C. it is 8.7 times as fast. At 270° C. the rates are equal. With sodium sulphide and sulphate liquor solution of incrustants is greater while solution of cellulose is less. For this reason sulphate liquor gives a stronger product than sodium hydroxide.—C. J. W.

Pentasulphide Cooking Process. Viggo Drewsen. *Paper* 34, 1181-1182 (Oct. 16, 1924). A reply to Tingle's comments on the Drewsen patent claiming priority for the use of acid as well as alkaline reagents for the treatment of the pulp after cooking, and claiming lower consumption of lime and sulphur, as can be noted by careful examination of U. S. pat. 996,225, Jan. 27, 1911.—A. P.-C.

An Experiment with Tingle's Polysulphide Pulp Process. R. H. Stevens. *Paper* 35, 63 (Oct. 30, 1924). Treatment of 1 kilo of green bamboo (270 g. bone dry) with 40 g. of lime, 20 g. of sulphur and 4 l. of water, for 6 hr., at 320° F., corresponding to 75 lb. gage pressure gave a 51% yield of greenish gray, malodorous pulp. Treatment with acids or with soda ash in the beater did not seem to produce any marked change in the appearance of the pulp. It required little beating to develop maximum strength and formed a well filled sheet, which was not nearly as strong as that produced by a regular sulphate of the same material.—A. P.-C.

Polysulphide Pulp. Alfred Tingle. *Paper* 35, 134-135 (Nov. 13, 1924). A reply to Drewsen's criticisms.—A. P.-C.

Chlorine Process

Chlorine Gas Process of Making Cellulose. Devains or Cataldi? *Indus. Della Carta* No. 7, 27, Apr. 15, 1924. A critical examination of the claims of the DeVains people is made. The method rests principally upon the following reasons: That the HCl produced from the reaction is very dilute, thus acting as hydrate of chlorine which contains 7 to 8 molecules of H_2O; and that the increase of temperature is notably reduced, so that the destructive effect of HCl at high temperatures is, as it were, annulled (De Perdiguier, *Chimie et Indus.*, Feb. 2, 1922). Linari, on the other hand, has demonstrated the difficulty of assuming that chlorine water at ordinary temperatures is a solution of hydrate of chlorine of the type $Cl_2 + nH_2O$ (*L'Indus. Della Carta*, No. 16, Aug. 31, 1923), and Prof. P. Waenting has proved by experiment that the increase of temperature ascribed to the reaction only corresponds to the heat of the HCl produced (18.35) which is about half that of the heat of the formation of the elements (39.3). (*Papierfab.* Mar. 1923). The DeVaine process is slower than that of Schwalbe and H. Wenzel for the bleaching of pulp. In the former the chlorine concentration in the water is extremely small (5 to 6 g. per liter) whereas that of chlorine gas amounts to 80 to 90% by volume and, hence, bleaching by the DeVains process requires much more time. In addition it is evident that in the DeVains process less chlorine is consumed and more soda, and a relatively large quantity of fuel is burned. If a good pulp can be obtained by the process of Pompilio with the direct use of chlorine gas his method is preferable and more convenient in every respect. Linari, in fact, in the Bussi mills, has verified the claims of the Pompilio process, and has obtained a white and perfectly bleached pulp. The saving which is effected by this process is of two kinds: the use of compressed chlorine, from which the bleaching solution is made in the mill; the application of a type of combined bleach, that is, bleaching gas followed by a bleach of calcium chloride.—P. B.

The De Vains Process. Willi Schacht. *World's Paper Tr. Rev.* 82, 1532, 1534 (Nov. 7, 1924); *Paper* 35, 131-132 (Nov. 13, 1924). James Strachan, *Paper* 35, 132-133 (Nov. 13, 1924); *World's Paper Tr. Rev.* 82, 1534-1538 (Nov. 7, 1924). A polemical discussion of the merits of the process.—A. P.-C.

Chlorinated Pulp. Umberto Pompilio. *Indus. Della Carta* No. 11, 27, June 15, 1924. The two processes, the manufacture of cellulose with chlorine gas and its manufacture with chlorine water, are contrasted. The first has the advantage of simplicity and economy of fuel. After preliminary treatment with dilute soda without pressure, called alkaline imbibition, chlorination with gas follows, whereby the incrustations and ligneous matter are isolated, and the cellulose fibers are left intact. The pulp produced washes and bleaches beautifully. Tests by Prof. Levi at the Paper Experiment Station have confirmed the statements made concerning the commercial value of the process. Paper from esparto pulp, in particular is said to be of superior quality.—P. B.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

Convention of Cost Association of Paper Industry

The Thirteenth Semi-Annual Convention of the Cost Association of the Paper Industry convened at 10:45 A.M., in the Civic Association Building, Middletown, Ohio, John E. Hyde, President of the Association, presiding.

PRESIDENT HYDE: The Secretary has put on the program that the president is to make an address. I don't claim to be an orator, though our past presidents have been. So what I have to say I am going to read.

Address by President Hyde

In opening our meeting, we should consider something of the purposes for which we are gathered together. The sending of men to the Convention represents real investment on the part of the mill and each and everyone of us should try to make the meetings worth while, by being promptly on hand and giving earnest attention to the speakers who have been good enough to come and address us. Business conventions have grown to very large proportions in this country during the last few years, in fact have been termed by one writer, "The great American habit." I think that one of the principal benefits we can all of us derive is from a free discussion of mutual problems with one another, not only in the meetings but in groups around the tables and wherever a group is gathered together. Do not overlook this fact, that each man has problems which he may think are peculiarly his own, but he will oftentimes find that some other fellow has good ideas and has solved them while he in turn may be able to reciprocate.

I oftentimes think that the term "Cost System" has been overdone, and that we should talk entirely of "Cost Methods." Let us consider for a moment, "What are Costs"? The primary object for which any company organization is formed is for profitable operation of the business in which they are engaged. Because of the necessity of knowing what we are doing and where we are headed, it naturally follows that records must be kept, and this has developed into Cost and Statistical Departments. Our cost methods are of no value unless they are an aid to our respective organizations in profitable operation and the methods must be so developed as to show promptly and accurately the tendencies of the business; these, of course, being sub-divided into as many departments and grades as may be necessary. The point I want to emphasize is, that we must make our cost methods a vital part of our business organization, and something which will indicate intelligently if our business is profitable. We are not recording costs merely for the sake of the forms and the detail which a cost accountant often thinks necessary, but we are recording costs as a means to an end; that end being the profitable operation of our business.

Do not expect in the paper mill to get exact figures but plan your methods so as to allow for variables and predicate your distribution on careful estimates. This will enable you to promptly present your reports which should always be tied up with the general books of account. This is another point that I wish to emphasize; the prompt presentation of cost figures. As a matter of fact, I consider costs of very little value unless they are made up promptly so as to enable the operating department to check unsatisfactory results.

Need of Cooperation

I hope that each and every one of us will get something out of the meetings, and as I first stated, we cannot do this unless we have a free discussion and participation in the meetings, by all present. Consider yourself the representative of your individual companies, and expected by them to make a report, on your return, as to what the meetings mean to you.

I also wish to bring to your attention the work of our Secretary-Treasurer and how necessary it is that he have the cooperation of all the member mills. There are three phases of activiey which touch us all:—

(1) INQUIRIES coming in from members and non-members as to particular accounting problems. Our Secretary is sending out letters to all and there is no question but many of you have faced the particular problem on which the inquiry is based. Try and answer these inquiries promptly if you have the information and help in this service that our Secretary is giving.

(2) BALANCE SHEET RATIOS.
In 1924—59 mills responded. So far approximately 70 mills have responded. These ratios have created a great deal of interest and favorable comment as to the work of the Cost Association. Mr. Burke will tell you something of this on Friday afternoon but if you have not done so, I bespeak your cooperation in seeing that your Treasurer gets the balance sheets forward promptly to our Secretary.

(3) PULP AND PAPER PROFITS.
This our Secretary is trying to use as a medium of presenting to members information and data which will be useful in your work. Any articles or data that you may have will be very welcome, and I again ask your cooperation with the Secretary in this effort.

(4) The Cost Association should have double its present membership of live, progressive mills. Mill executives will agree costs and statistics are necessary. If each of you men will bring home to your mill executives that the cost association has done real effective work in establishing and extending better cost methods in the paper industry, the success of the cost association is assured.

COST SECTION

PRESIDENT HYDE: Our Secretary has been fortunate in arranging for Mr. H. G. Baldwin, of the American Appraisal Company, to be with us this morning and to give us a talk on "Appraisals and the Profit and Loss Statement." We will now hear from Mr. Baldwin. (Applause.)

(Mr. Baldwin's address was printed in last week's PAPER TRADE JOURNAL.)

PRESIDENT HYDE: Mr. Baldwin has given us a very fine talk and I hope that you will ask him some questions, which he has kindly consented to answer.

Mr. Baldwin Questioned

QUESTION: I would like to ask how many years you have had this method in operation?

MR. BALDWIN: This plan, as far as I know, sir, is not working out anywhere. I personally, together with some friends of mine who are interested in the same problem, have been working on it and thinking about it for three or four years. It is new. There is no doubt of it. And yet, I don't believe that there is a question, from one cost to the other, to day, in management circles, that is occupying more time in committees and directors' meetings than this question we have discussed today. The necessity has grown to the point where it is plain to everybody that something has to be done about it. You see if, as I say, we are operating 1913 problems, then we have already accumulated ten years of this liability replacement—more than ten years. The second ten year period is the period when normally the major portion of this liability will be realized—the end of a twenty year period. The thirty year period is about the limit we can figure as the average cycle of business experience, and more often twenty. And it is this fact, and the constantly increasing necessity for the replacing of property at double the cost, that is forcing management to consider the problem, regardless of the fact that it violates company precedents, preconceived ideas of conservatism and general long accepted business procedure.

It was discussed in Cleveland last week at the Industrial Engineers' Convention. One of the large accountants in Chicago has, I understand, come out flatfooted for a reproductive cost basis. Not saying, gentlemen, that you shall charge it into your costs, because your competitive conditions may be such that you can't do that. But every manufacturer today, with an obligation to his stock and bond holders, should know what that accumulating liability is, and be prepared to meet it, either out of surplus or additional capital or some other way.

It is new, sir.

QUESTION: Do I understand that these entries are made yearly, and you set this up on a basis of individual units, to make up these total sums?

MR. BALDWIN: The appraisal does that. Presumably, a property ledger is adjusted from the appraisal. The appraisal once made and carried forward by the continuous service plan, adjusts those depreciations yearly or quarterly or semi-annually, as it is made. From those you get a composite rate, and these adjustments are made once a year.

The scheme is simply this: to predicate each year's operation on conditions as they then exist—readjusting your focal point, as far as competitive conditions and conditions in the trade are concerned, each year, at the beginning of the year's operation. Then if costs go down (and there is no doubt about it that they are not going down), you are prepared for it. You are meeting it as it comes. Whereas, the man who has not been doing this, when the plant is exhausted, has got to step out in the market and dig down in his pocket, or else inveigle somebody else to come in with him with new capital and get the properties he has failed to provide for over the period of years he has been distributing tangible original investment as dividends.

That is what it amounts to—the slow liquidation of the original investment in property.

Reserve or Replacement?

QUESTION: Where replacements are actually made, is it charged to reserve or replacement?

MR. BALDWIN: That is a mooted question. Every individual will have to settle it for himself. It certainly should be taken from it. That is the theory of the thing. It depends whether you keep a cash reserve or whether it is a reserve in name only. There is a tendency now, to cash reserves. I have noticed it in the last six months. They are thinking of it seriously. It is something that has not been done before. It is something also that is all but revolutionary.

QUESTION: It is hardly fair to charge both depreciation and replacements to cost.

MR. BALDWIN: It is not fair, and personally I would say no. Of course it is true that your repairs will immediately increase the useful expected economic life of your units, and that automatically, in our service at least, will be reflected in the depreciations that we set, which will tend to compensate that penalty. But that is a matter that we really don't make any recommendations on unless we are definitely asked to, and then they are made in the light of a particular individual plant policy, depending on what that is. As a matter of fact, this is not a recommendation. It is my own personal idea of what I would do, if I were doing it. It is not representative of our thought in the matter as a corporation. But I have talked, in the last year, to, I will venture, at least six hundred executives of business and I believe I can count on the fingers of two hands the men who have not, before the interview was over, broached this very subject, which shows how very deeply they are all thinking about it. It is a live issue right now.

QUESTION: You made the statement, I think, that depreciation is not figured on replacement value, for cost; that that figure is on the original cost value; and you also made the statement that that condition is determined somewhat by competitive conditions in the industry. At the end of a year you then have, presumably, some adjustment to make for a reserve for depreciation. Is that a direct charge to profit and loss, or to surplus, and how is it to be taken into account in figuring the year's advance, supposing that you're operating under a budget plan?

MR. BALDWIN: If you are operating under a budget plan, the only thing you can do with this problem is the same thing you would do with other problems—try to predetermine, on the basis of present conditions, what the year is going to bring forth. That is the best you can do with any budget plan. The depreciation charge each year is a direct charge to profit and loss, but it is redistributed through the depreciation and replacement reserves, reducing the depreciation reserve every year you charge to profit and loss. Your liability in the depreciation reserves grows less all the time. The depreciation reserve represents the potential liability that you face for replacements today if your plant should suddenly, simultaneously exhaust itself. The reserve for replacement, the way we are speaking, represents water gone over the dam. In other words, it represents the sum of money that should have been accumulated against this day, and that you ultimately must accumulate. Only one condition will excuse you from accumulating and that is declining market prices, because from year to year it represents the limit you will have to meet as far as liability is concerned.

Adjusting Depreciation Rates

QUESTION: In the reserve, would it be possible to take care of that difference by adjusting the depreciation rates each year—making them a little more than usual?

MR. BALDWIN: The depreciation rate, of course, with us is a sacred thing, and with you gentlemen it is not so sacred. The depreciation rate with us is the result which we traced back to its cause, loss of utility, and cannot be but one thing. Now, for expediency, you could of course increase or decrease the rate, but

goodness only knows where you would come out. You might be one hundred miles from first base, don't you see, because you are picking a depreciation rate out of the air that may or may not have any relation whatever to the actual loss of utility of the property—to the fact, in other words. And you might easily get it far too high, particularly if values should tend to rise, because of course if values rise your depreciation rate will be affected at the same time, and you have compounded the thing. If values decline you may easily get it too low.

QUESTION: You answered a question about budgeting, by saying to predetermine your facts as far as possible. We are recommending budget systems right along, and it seems to me if you have to predetermine, in order to predetermine what it will be for the budget system, you should be in as good position to predetermine an increase in the depreciation rate. It would be just a matter of figuring to find out what changes to make in your depreciation rate in order to take care of the change in that year.

MR. BALDWIN: I see what you mean. As far as depreciation is concerned, the rate would remain fixed, but what would happen after applying it to changed values is a thing we can't predetermine.

QUESTION: If you are making changes on your books, instead of that it seems to me you might change your rates in order to set up a bigger depreciation reserve. Of course, you will build up a bigger reserve than sufficient to take up cost value. You might have a depreciation reserve of nearly one hundred per cent and still have some of the plant left—it might be one hundred and fifty or two hundred per cent of your cost value yet only be just sufficient for replacement value.

MR. BALDWIN: The trouble is that there you have no real basis of fact on which to apply the changed percentages. We have had in the last ten years a fluctuation in value of approximately one hundred twenty-five per cent in properties. That has gone up and down. Those charts which have been distributed among you will give you an idea of what has happened to that. If you pick a composite rate of depreciation based on actual facts, as determined by careful analysis and appraisal of the property itself, and determine that rate to be ten per cent, we will say, and you have a plant that on the 1913 basis amounted to a million and a half or two million dollars (the values dropped during 1921 and 1922—went way down), you are still computing depreciation on the 1913 basis. The 1921 basis was some forty-five per cent above the 1913 basis.

Now we will increase our percentage and meet the problem in that way, as you suggest. But how much shall we increase it? And we can't know how much we should increase it, and know accurately, without knowing what values are today.

QUESTION: Why not forty-five per cent?

MR. BALDWIN: Forty-five per cent applied against the 1913 basis would give you a depreciation way above what would be warranted at that time. You would be taking a chance at depreciation. If you take an eight per cent depreciation on the 1913 basis and you add forty-five per cent to that, and apply it against the 1913 basis, you have way above eight per cent on the 1921 basis, because the eight per cent is fixed. Eight per cent is fixed according to the rate of exhaustion of the property under normal operative conditions. That is the whole kernel of the scheme.

Only One Fixed Factor

QUESTION: I don't see why it wouldn't work out the same way.

MR. BALDWIN: No. There is only one fixed factor in this whole matter of depreciation and that is this loss of utility, which has nothing to do with dollars and cents. The loss of utility of property is the starting point of all depreciations regardless of the fact that we have considered it in the past on a different basis. Accountancy has done the best they could, I say that because the appraisal profession (and we are the oldest in the business), is only twenty-nine years old this year, and accountancy is of course lots older than that. They have fixed depreciations according to the best they knew and could get, but the fact remains that economically and scientifically it has been erroneous because there is only one basis for it and that is the loss of utility in property. The economics of depreciation all point back to that one spot. We don't have any interest in depreciating property that is not used or useful in the creation of wealth, or that is not desirable to someone else for the same purpose. It is only the replacing of property itself that causes us to be interested in depreciation at all, and it is a problem of exchange purchase, and the terms of dollars and cents do not alter the economic truth about it. That loss of utility is one fixed factor in the computation of depreciation. Everything else is fluid. The basis on which it is applied is fluid, constantly changing. The only thing that will change that factor will be a difference in the operating conditions of the property itself. If you start two shifts, you automatically increase your rate of exhaustion. If you change water, and your water supply is loaded with chemicals of some sort or other that rust your machinery out, you have a difference right away. But it is the most stable factor of anything connected with the problem.

Now with that in mind, to change that percentage and then apply it on a given basis, when market conditions are constantly going up, just simply compound your rate and even if you are a good guesser (you may guess the percentage to an eyelash, one chance in a thousand) yet, you would fall short of accumulating the necessary value to replace those properties because of the fluctuation in market prices.

QUESTION: Don't you think the reserve costs will do for obsolescence?

MR. BALDWIN: We consider reserve costs in fixing obsolescence. There is a large amount of disagreement, as you probably know, not only among appraisers but accountants, as well, as to whether or not obsolescence can be anticipated. Our position is that all obsolescence today can be anticipated to a degree. In other words, any of you gentlemen here in the paper industry for ten years know the general trends of developments in that industry, improvements in machines, beaters, improved methods, and that sort of thing. And we have been at this work for twenty-nine years. We have observed it, and we take the position that we can predetermine over the ordinary average cycle of business, or half of it, what the chances are of obsolescence, and if there are other factors that enter into our composite depreciation or loss of economic utility, as we speak of it, that loss of economic utility covers everything—physical deterioration, wear and tear, obsolescence, inadequacy, and other functional factors that influence depreciation.

QUESTION: If a mill pays fifty thousand dollars, we will say, for a machine, and anticipates that machine will last twenty years, and it lasts only seven or eight years, then should it not be charged off?

MR. BALDWIN: If it actually happens.

A Special Problem

QUESTION: We will say the machine costs fifty thousand dollars and lasts ten years. Fifty per cent of the depreciation at the end of the tenth year will go to profit and loss. Twenty-five thousand dollars will go in one year, then, when it should be split over ten years. Why not reserve one-half of one per cent for obsolescence? If your obsolescence is in excess of what is actually required it can be thrown into depreciation.

MR. BALDWIN: That is a special problem. But if obsolescence can be predetermined to any extent—I mean on a known basis—(something tangible and not a mere personal opinion) I would say it would be much better to accumulate it in the standard normal way, as I have outlined. If you have a special problem where obsolescence suddenly rises up like a cloud in a clear sky, it will have to be dealt with when, and as policy dictates. But I don't think that happens so very often. In other words, I don't know of any line of invested endeavor where the factor of obsolescence practically jumps up overnight.

QUESTION: Don't you think it possible, in some lines of endeavor, that there would be almost obsolescence of the entire plant overnight, through a change of style and material—as in the case of silk for chemical wood pulp for instance.

MR. BALDWIN: That is very unusual, however. You take industry over the country. Take steel—and while the development of steel and steel making methods fifty years ago didn't see that condition (and you don't see it today once in a month's journey), fifty years ago when steel making was coming into its own, plants were obsoleted overnight, almost. But that was revolutionary.

The factor of obsolescence has to be dealt with sharply, under those conditions. We go into a metal working plant and we see a lathe that we know is twenty-five or thirty years old and has the old style gear chains on it, and we know that machine is obsolete. We can predetermine it right there, and the value of the product. Because under present labor conditions such a machine is more of a liability than an asset. That is an illustration of known obsolescence.

QUESTION: I rather assume, in the paper you have just read, you have in mind the problem we are having with the Federal Government over taxes, and the possible setting up of a case based upon an appraisal value back to 1913. Don't you have that sort of thing right along?

MR. BALDWIN: We do, but not in that way. We don't work back at all.

QUESTION: A case might come up where that would come in, don't you think?

MR. BALDWIN: Oh yes. But such procedure in the first place would not be acceptable—working back.

Retrospective Appraisal

QUESTION: If you had depreciation to 1910, the only thing you could do would be to work back.

MR. BALDWIN: That is one policy—retrospective appraisal back almost from the beginning—that the Government has definitely set its face against, over three years ago. There is only one way in which they will accept that and that is to disregard books of account in the beginning, and go back to the properties themselves. They represent the best evidence of investment in the world, irrespective of what the books may show. Take the properties, list and describe them, in black and white, and then go to the books of account and see how much of it you can tie in from that and other sources, and weld it together. Beginning today and going back has a lot of open traffic, and especially with these large concerns who still have millions of dollars in property investment hanging fire.

QUESTION: Did I understand you to say that depreciation should not be figured or added to your cost on replacement value?

MR. BALDWIN: I advocate that it should be figured on replacement costs, because that is the only basis of recovering the property. Whether you charge that into your cost or not, is a matter for each one to consider, but the point is that everyone should know the truth.

QUESTION: Don't you think it would be better to add it to your cost?

MR. BALDWIN: If it is possible to do so, by all means. If your competitive conditions will permit, by all means.

QUESTION: The reason I bring that up is that today there is more machine capacity than is required, with the result that, in spite of that fact, new machines are being built, and old mills are being remodelled. Now in remodeling these old mills you are going to find that in many cases your present book value of these old mills, plus the cost of improvement, is very close to replacement value of those mills today; with the result that if one mill figures on a cost and another on a replacement, there are going to be several variances if you start comparing costs. So I should think it should be on a uniform basis and it would be more healthful to the paper industry if they would establish one basis and use that as the procedure to follow. It would stabilize the industry.

MR. BALDWIN: You have a problem there, from your standpoint, as a cost association, that is no mean one. If every mill in the paper industry should decide to depreciate on the basis of reproductive costs, and you should carry your costs with the idea of getting down to a working, operative, just and equitable basis both for yourselves, your competitors and your public, there would be bound to be discrepancies in it, and it would require a lot of thrashing out, because each mill has its problem. Each mill has its operating problem. I have talked to those in the paper industry in the last few months who seem to feel, as far as the pulp end of the industry is concerned, that it will fix itself, and will be bound to from an economic standpoint. Those fellows will have to begin figuring on a different basis. They will have to amortize costs if that assumption is true, and they will have to amortize them as rapidly as they can. I know a mill in the kraft business. Its timber supply is practically exhausted. It can get more timber but the cost of recovery, the cost of chemicals and the cost of labor and that sort of thing, is putting its costs, so one of their comtrollers told me, up to something like fifteen or eighteen dollars a ton, over what the southern mills can do. Now there is not anything for that mill to do but to amortize its costs and get out from under as quickly as possible, because it has a two and a half million dollar investment up there, I should judge; and there are others more or less in the same boat. Those fellows following the specialty business are in a better situation. But there are many in that same position.

Now every mill must be the arbiter in the matter, itself, and it must be determined under individual conditions, but every mill should know without any question where it stands, as far as that liability is concerned; because gentlemen, that liability is tangible. It is not ethereal in any sense of the word. It is tangible, and the fact that we can't see it piling up under our nose every day, as we see costs in every other respect, in no way alters the fact that it is still very tangible.

Predetermining Valuation

QUESTION: Here is the proposition everybody will be confronted with. It will be necessary to predetermine what the physical valuation of the various appraised machinery equipment is. In our place we have the appraisal, and continuous service by the American Appraisal Company. We don't know in advance whether the properties are appreciated for the year or depreciated. How would you handle that situation? Is it a matter of investigating what the appreciative value would be for a particular year, or wait until the year is over?

MR. BALDWIN: It is presupposed that you start this January with a continuous service report. That report shows certain values. You make the adjustments on your books and predicate your composite rate of depreciation on those values, spreading it out over twelve months, monthly or at the end of the year.

QUESTION: I don't know how the continuous service of the American Appraisal Company will work out. What you have been telling us is something that is being proposed?

MR. BALDWIN: Yes.

QUESTION: I believe the American Machine Tool Builders' Association have already adopted this plan.

QUESTION: The question will now arise as to just how the changes will be handled. Will there be a change in the appraisal each year?

MR. BALDWIN: That is automatically reflected in the bulk value.

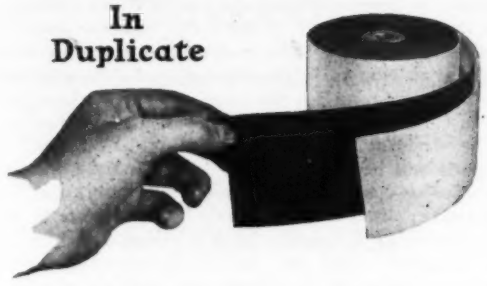
QUESTION: Then will the Government recognize the rates of depreciation which will remain the same on the increased or reduced valuation of the property?

MR. BALDWIN: They will not recognize it but will allow you more than otherwise.

Ours are engineering depreciations, and theirs are goodness knows what.

Carbonized Adding Machine Rolls

In Duplicate



The necessity of duplicate adding machine listings has created an increasing demand for these rolls.

Ask for Samples and Quotations

PAPER MANUFACTURERS CO., INC.
S. W. Cor. 5th and Willow Streets, PHILADELPHIA, PA.

THE DRAPER FELTS

All kinds and styles of Felts for all kinds and styles of Papers.

Write us about your Felt problems and let us help you reduce your Felt Costs—we will call anywhere at any time.

DRAPER BROS. COMPANY
CANTON, MASS.
Woolen manufacturers since 1856

TEXAS GULF SULPHUR

99½ Per Cent Pure

Huge reserves, ample stocks of remarkably pure material and unexcelled service.

Texas Gulf Sulphur Company
General Offices
41 East 42nd Street, New York, N. Y.

Sulphur Deposit and Plant, Gulf, Matagorda County, Texas

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PAPER BAG
CENTER SEAM ENVELOPE
MACHINERY

POTDEVIN MACHINE CO.
1223 38th Street, Dept. 7, Brooklyn, N. Y.
Phone: Berkshire 5906-5907

QUESTION: There is no doubt that the Government will not allow the depreciation on your basis.

MR. BALDWIN: No—on cost.

It is not so intended. We were talking about the rate of depreciation. Our rates are based almost entirely, for tax purposes, on the engineering facts. Whereas, with the Government, when this matter was brought up, through research the Government got the average experience in an industry, and of course the depreciation rates were determined largely by the ordinary run of business policy as it had existed over a period of the last fifty years, when a man took pride in saying that his plant stood upon the books at a dollar. In other words, excessive depreciation was the rule. Therefore, the depreciations which the Government have allowed for income tax purposes have been as a rule above what the engineering facts would warrant. But in this plan, as I have outlined it, that is automatically provided for, because the plan will permit this: If the Government will allow you ten per cent, you will take your ten per cent on cost, and if you suffer eight per cent you take your depreciation at eight per cent on the appraised cost, and charge the reserve for replacement on the original amount over and above cost.

QUESTION: I believe the Government has allowed one-half of one per cent extra for obsolescence.

MR. BALDWIN: They have made some exceptions.

QUESTION: It is merely an effort to get some sort of reserve set up.

MR. BALDWIN: Merely part of that old game—you scratch my back and I'll scratch yours.

QUESTION: The question about obsolescence was not put very clearly a while ago, I believe, to you. What was meant was that you could work your value back to, we will say, March 1, 1913. We were talking about properties and not book values.

MR. BALDWIN: Yes—I misunderstood.

QUESTION: I want also to say that the Comptrollers' Congress of the Retail Dry Goods Association of America have adopted this plan of figuring costs.

MR. BALDWIN: I said I did not know of anybody who was using it.

QUESTION: Their national meeting will be held on June 18, in Dayton.

MR. BALDWIN: I want to say there are at least six district offices of at least two accounting and auditing firms of national reputation who have placed themselves on record as saying that they were willing to work along some of the plans, which is a long radical step forward. If you stop to think of the years, going back to the early days of engineering accountancy, that depreciation has been computed on cost, and the bitterness with which this innovation is being fought by the old conservative accountants, you can appreciate what a revolutionary step it is, and I think largely it is being fought by them because of the general poor terminology, or nomenclature, whatever you want to call it, of that word "cost." It is indefinite in a way, as is also the terminology of "value." We say value, and everybody here almost may get a different slant on what we are talking about—what kind of value. The same thing is true of cost, and also the word profit. I can't see—cost may be what I reach down in my pocket to pay for, what it costs me. But that is a radically different mater than the cost to me of producing a given thing. Included in that cost is most certainly the wear and tear and loss of useful economic life of the tools with which I produce it. If that is not cost, I don't know the word.

Determination of Rates

QUESTION: In determining rates in this industry do you take into consideration the matter of the twenty-four hour operation?

MR. BALDWIN: In fixing our depreciations? Oh yes, sir. Those matters are inquired into in every plant. The matter of hours of operation, the matter of upkeep, maintenance, renewal, repairs, are all checked carefully. As a matter of fact, our depreciations are set, particularly in the paper industry, on the basis of those records we have investigated over a period of years.

QUESTION: Last Tuesday morning a Government man made the statement that it was usual to run, in the paper industry, twenty-four hours a day. I didn't exactly agree with that.

MR. BALDWIN: It is a broad statement because it is not true in most general cases.

QUESTION: In arriving at this, have you taken into consideration prices in the paper industry? I know one particular case where there was replacement on a paper machine, and figures were gotten from local manufacturers in this country, and they were almost twice as high as figures for the same type of machine abroad. Now it just remains to the judgment of the excutives as to whether he wants a foreign machine or a local machine. Two different mills will buy machines, one locally and the other from a foreign country—and you would have a difference there.

MR. BALDWIN: That would be worked in and made to reflect itself in your costs. You might be in a strategic position there, and your competitor would not. That is the beauty of the thing.

And before I forget it, Mr. Burke was speaking of adjusting rates of depreciation. Here is a sample of the error of picking depreciation rates out of the air. A mill is operating on a twenty-four hour basis, and the rest of the mills on eight and ten. There you have the way of getting at the rate of depreciation. And if you gentlemen think it doesn't amount to much, and you compare the figures in two plants, you will find it does amount to a lot, particularly over a period of years, and that is what we are dealing with in this question of depreciation. It is not tomorrow, but ten or fifteen years from now that we are considering.

Sometime in the last year I addressed another of your regional conventions, I think in Chicago, on the subject of depreciation, and at that time I had some charts made up which showed the actual operation, as we go through it, of determining the composite rate on a paper machine. I believe this was a Davenport machine. Those charts are available and I feel very sure, if your Association cares to have them, and will simply drop our home office a line, that they will supply you with as many as you need. They will give you probably a better idea than anything else I could say, as to the fairness and scientific carefulness with which we have gone into this problem of depreciation. It is no longer a theory. We have, I believe I can safely say, tied it down as well as it could be, with only one cycle of business experience to go on. By the time we have been in this work for thirty more years, which will cover the average expectancy of life of the average property, buildings and everything considered, I don't believe there will be enough guess work left in it to worry any of you gentlemen. As it is, the bulk of the guess work is eliminated now on standard, regular types of industry, and the paper industry comes under that head. (Applause.)

PRESIDENT HYDE: Again I express the appreciation of our Association to Mr. Baldwin. We will give him a rising vote of thanks. (The members arose and applauded.)

Bids and Awards for Government Paper

WASHINGTON, D. C., June 3, 1925.—The Government Printing Office will receive bids on June 8 for 4,420 pounds, (1,000 reams) of 8 x 10½ buff mimeograph paper.

The Government Printing Office will receive bids on June 10 for 20,000 pounds, 24,000 sheets of No. 2 quality 25 x 30—No. 60 binders board.

Filmore & Slade have been awarded the contract by the Bureau of Supplies and Accounts, of the Navy Yard for furnishing various east coast navy yards with 179,000 rolls of toilet paper at $15,217.68. The same firm will also furnish 410,000 rolls to the Mare Island and Puget Sound navy yard at $33,210. Bids for these items were received on May 19.

–ROYAL FILLER–

For Paper Maker's use

GUARANTEED

Absolutely clean, absolutely uniform, absolutely free from grit, and white in color, in excess of any other Filler on the market.

"MORE PAPER and BETTER PAPER"

out of same Fibre furnish of stock.

Opportunity to demonstrate the above is solicited by

DEXTER & BOWLES

Springfield **Mass.**

COLLINS MANUFACTURING COMPANY

SAMUEL R. WHITING, Pres. and Treas.

Manufacturers of

LOFT DRIED PAPERS
LEDGERS
BONDS
WRITING PAPERS

***Mill:*—North Wilbraham, Mass**

Main Office:

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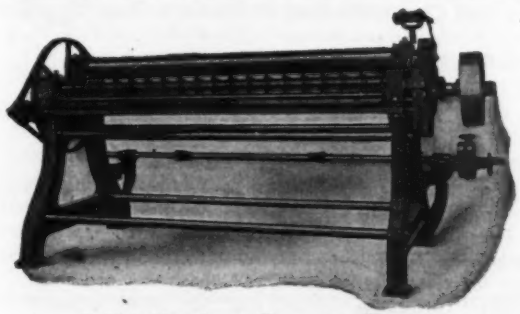
The "Dietz" Toilet Paper Machines

For making Toilet Paper Rolls with or without perforations



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AUTOMATIC TUBE MACHINES

FOR MAKING TUBES FOR TOILET PAPER ROLLS CAPABLE OF PRODUCING 3,600 WIRE STITCHED TUBES PER HOUR

Also machines for making Sanitary Crepe Paper, Towels, Slitting and Rewinding Machines, Drop Roll Slitters, Photo Mount Beveling Machines, Rotary Card Cutting and Collating Machines, Etc.

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IRA L. BEEBE & CO.

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Stockholm and Christiania

Standard Size for Grocers Bags

Steps of very far reaching importance in the grocers bag industry were taken at the conference of manufacturers, merchants and users of grocers bags, held on May 26, 1925, at the Department of Commerce, Division of Simplified Practice, Washington, D. C., at which there were present representatives of the National Paper Trade Association, the National Chain Stores Association, the National Wholesale Grocers Association of the U. S., the National Association of Retail Grocers, the Grocery Bag Manufacturers Service Bureau and a large number of bag manufacturers, the bag machine manufacturers and representatives of the United States Chamber of Commerce, the Department of Commerce and Bureau of Standards and other government departments.

Recommendations Unanimously Accepted

The conference unanimously accepted the recommendations covering standards of size for cubical capacity which had been made after many months of study and investigation by the Grocery Bag Manufacturers Simplication and Standardization Committee, and these standards have been filed with the Bureau of Standards at Washington. It was provided that they should become effective by October 15, 1925. Details respecting the terms of use and application of these standards are now in process of being worked out and will be available for publication within a short time. In connection with these standards the Bureau of Standards is to designate an emblem which is to be used only on bags conforming to these standards and which when used will constitute a representation or guarantee by the manufacturer that the bag is of standard size.

Everyone interested in grocers bags will at once recognize that this matter of standards constitutes a most important constructive step. For many years grocers bags, instead of tending to arrive at any standard basis, have been developing in the opposite direction and have reached a very chaotic condition. It was found by the committee which studied this matter that there were variations of as much as 25 per cent in bags of different manufacture, which, however, purported to be the same size. There has been no generally established standard for the manufacturer to follow and misrepresentation and deception on the part of some manufacturers has attended this situation with the result that the buyer of bags in many cases has not been able to know whether he was getting what he paid for when he ordered a certain size bag.

Will Have to Order Only Standard Bags

After the new standards come into use all this will be changed, for then the buyer will only have to order standard bags and obtain from the seller a guarantee of their standard character. Any manufacturer who uses the emblem designated by the Bureau of Standards on a bag, if the bag is not in accordance with the standards filed with the Bureau, will render himself liable to be proceeded against under the laws relating to unfair trade practice, as well as responsible in damages to the buyer or user for his misrepresentation.

All parties interested, incluing the manufacturers, the merchants, the stores and other users who attended the conference, were most enthusiastically in favor of these standards, and heartily voiced their appreciation of the efforts of the Department of Commerce and the Bureau of Standards as well as the work of the Industry Simplification Committee, which has made them possible.

Secretary Hoover Makes Address

Secretary of Commerce Hoover received the report of the conference and made a most interesting and valuable address on work of this character and general business conditions.

Another very important constructive step taken at this conference was the acceptance of recommendations for the dropping by October 15, 1925, from bags carried in stock, of certain sizes and brands which were found to be in very light demand or covered by other sizes. The sizes so eliminated were as follows:

Self-Opening style of Grocers Bags—1½—7—11—30 and 35 pound sizes.

Square and Flat styles of Gocers Bags—1½—11—30 and 35 pound sizes.

In addition to the foregoing eliminated sizes it was found that there was a large variety of brands made by the various manufacturers duplicating the performance of brands to be retained. This covered 1,580 items of stock sizes to be eliminated in 79 brands, or an elimination of 25.16 per cent.

Will Effect Large Economies

Both merchants and manufacturers will effect large economies through dropping these sizes and brands from stock inasmuch as the amount of capital required to carry stock will be decreased, and in the case of the manufacturer other reductions in costs will be accomplished. It is estimated that this matter will result in a saving of upwards of $600,000 per year.

It was explained that further simplification was being studied and investigated and that further recommendations along these lines probably would be made as the matter developed. A standing committee to take up any maters along those lines or otherwise advisable was appointed and consists of the following:

Among Those Who Attended

C. R. McMillen, Chairman of Committee, Union Bag and Paper Corporatio, Representing Grocers Bag Manufacturers, Woolworth Building, New York City; Wm. C. Ridgway, Representing the National Paper Trade Association, 41 Park Row, New York City; Alfred H. Beckmann, Representing The National Chain Store Grocers Association, 233 Broadway, New York City; E. F. Brewster, Brewster, Gordon & Co., Representing National Wholesale Grocers Association of the U. S., Rochester, New York; Julian Richmond, Representing Bag Machine Manufacturers, Potdevin Machine Company, 1221 38th street, Brooklyn, New York; John H. Meyer, Representing National Association of Retail Grocers, 296 Broadway, New York City; W. E. Moser, Representing Grocery Bag Manufacturers Service Bureau, secretary of Committee, 53 Park Place, New York City.

American Writing to Settle Tax Matter Soon

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., June 2, 1925.—President Sidney L. Willson of the American Writing Paper Company speaking of the petition filed by the Company's counsel at Boston this week for permission to issue receiver's certificate to liquidate the tax indebtedness of the city of Holycke amounting to over $300,000 said that plans for reorganization were well under way and that he could not give the date he expected that they would be completed and ready for action in a few weeks.

Further indication of this fact was shown this week in renewed activity in the bonds of the company which reached 61½. This activity was generally admitted to be due to the expected announcement of the completion of the plans for the reorganization.

No information as to the detailed plans of this reorganization are yet obtainable.

The city of Hoyoke will allow the petition for receivers certificates to take precedence in the United States Circuit Court when it comes to a hearing if desired. The city only desires to protect itself. This the action taken by the city has done.

The city will for the present make no move towards seizing any of the property of the Company. It is believed that if the Court grants the right to issue the certificates payed for that the city may withdraw its petition.

A Remarkable Range of Grades, Textures and Weights

Orr Endless Felts can now be obtained up to 86 feet in length.

With our enlarged new equipment we can now furnish Paper Manufacturers with endless felts up to 86 feet in length.

Paper Manufacturers who carefully check manufacturing costs, and also strive to produce more and better paper at a lower cost per ton, prefer the unvarying quality and long service of ORR felts. A trial of them will bring about a preference that will be lasting.

THE ORR FELT & BLANKET COMPANY, Piqua, Ohio

1864 1924

"EXCELSIOR" FELTS

for every grade of

PULP AND PAPER

We continue to maintain at the top the quality of Excelsior Felts, as we have done since we, as pioneers, made the first endless paper machine felts manufactured in America.

Seamless felts for fast running.
Satin Style felts for finish.
Special felts to meet every condition.
Send us your felt problems.

KNOX WOOLEN COMPANY
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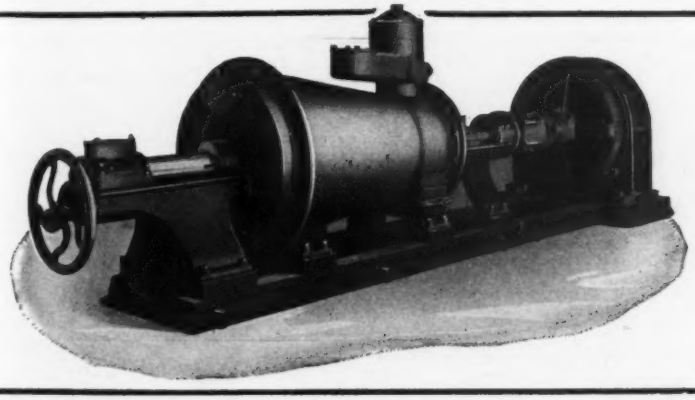
JORDAN FILLINGS

The only makers of the genuine ***Positive*** Fillings.

The Bahr Brothers Manufacturing Company
Marion, Indiana, U. S. A.



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Our latest Improved Machine, three sizes; belt or direct connected motor driven. All Bearings self-oiling, adjustable and water-cooled. Fitted with Standard Steel Knives, Special Heat Treated Steel, Bronze or Manganese Steel Plug and Shell Lining.

For full particulars apply to

DILLON MACHINE CO., Inc.
Builders of Paper Mill Machinery
Lawrence, Mass.

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING MAY 30, 1925

SUMMARY

News print.....904 rolls, 316 bls.
Wrapping paper..51 bdls., 713 rolls, 617 bls., 85 cs.
Printing paper .....317 cs.
Wall paper.....6 cs., 18 bls.
Cigarette paper .....2,766 cs.
Packing paper .....1,409 bls., 20 cs.
Baryta coated paper.....120 cs.
Surface coated paper.....13 cs.
Colored paper .....42 cs.
Writing paper .....2 cs.
Drawing paper .....15 cs.
Filter paper .....14 cs.
Fancy paper .....3 cs.
Decalcomania paper .....4 cs.
Cover paper .....6 cs.
Paper hangings .....11 bls., 5 cs.
Paint paper .....3 cs.
Parchment paper .....12 cs.
Tracing paper .....9 cs.
Basic paper .....67 cs.
Red wax paper.....1 cs.
Silk paper .....8 cs.
Paper tubes .....6 cs.
Cardboard and gummed paper.....4 cs.
Gummed paper .....1 cs.
Stationery .....106 parcels
Tissue paper .....2 cs.
Miscellaneous paper.....123 cs., 9 bls.

CIGARETTE PAPER

American Tobacco Co., Collamer, Bordeaux, 550 cs.
R. J. Reynolds Tobacco Co., Collamer, St. Nazaire, 1,700 cs.
De Manduit Paper Corp., by same, 413 cs.
P. J. Schweitzer, France, Havre, 27 cs.
Liggett & Myers Tobacco Co., McKeesport, Havre, 18 cs.
Standard Products Corp., by same, 30 cs.
F. P. Gaskell & Co., by same, 28 cs.

WALL PAPER

W. H. S. Lloyd & Co., Carmania, Liverpool, 1 cs.
F. J. Emmerich & Co., Minnekahda, London, 1 ble.
F. J. Emmerich & Co., Cedric, Liverpool, 4 bls.
A. C. Dodman, Jr., Inc., Olympic, London, 3 cs., 6 bls.
A. C. Dodman, Jr., Inc., Mauretania, Havre, 1 cs.
F. J. Emmerich & Co., Westphalia, Hamburg, 7 bls., 1 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., Minnekahda, London, 11 bls., 5 cs.

NEWS PRINT

J. P. Heffernan Paper Co., M. Washington, Trieste, 316 bls.
Parsons & Whittemore, Inc., Lutzow, Bremen, 904 rolls.

PRINTING PAPER

C. Steiner, Ryndam, Rotterdam, 7 cs.
B. F. Drakenfeld & Co., Carmania, Liverpool, 22 cs.
Perry, Ryer & Co., Tuscania, Glasgow, 138 cs.
H. Reeve Angel & Co., Inc., Minnekahda, London, 1 cs.
Oxford University Press, Cedric, Liverpool, 6 cs.
E. Dietzgen & Co., Westphalia, Hamburg, 23 cs.
Merchants Products Corp., by same, 13 cs.
Kohner, Gebrig & Co., by same, 54 cs.
E. Dietzgen & Co., Resolute, Hamburg, 19 cs.
International Forwarding Co., Andalusier, Antwerp, 34 cs.

DRAWING PAPER

E. Dietzgen & Co., Rotterdam, Rotterdam, 13 cs.
American Shipping Co., Westphalia, Hamburg, 2 cs.

WRAPPING PAPER

Blauvelt Wiley Paper Manufacturing Co., Tuscania, Glasgow, 51 bdls.
Okonite Callender Cable Co., Minnekahda, London, 130 rolls.
F. C. Strype, Ala., Rotterdam, 6 bls., 24 cs.
Keferstein & Demonet, by same, 17 bls.
Chemical National Bank, Westphalia, Hamburg, 555 rolls.
Fidelity International Trust Co., by same, 30 bls.
T. Barrett & Son, by same, 64 bls.
G. W. Millar & Co., by same, 22 rolls.
Merchants Products Corp., by same, 500 bls.
C. Steiner, Resolute, Hamburg, 35 cs.
Morrisson Machine Co., McKeesport, Havre, 24 cs.
Garvin & Co., Zeeland, Antwerp, 2 cs.

PACKING PAPER

J. P. Heffernan Paper Co., Westphalia, Hamburg, 315 bls., 8 cs.
International Forwarding Co., by same, 12 cs.
Maurice O'Meara Co., Resolute, Hamburg, 6 bls.
W. Schall & Co., by same, 1,012 bls.
Pulp & Paper Trading Co., by same, 76 bls.

FILTER PAPER

H. Reeve Angel & Co., Inc., Minnekahda, London, 6 cs.
E. H. Danziger & Co., Inc., Westphalia, Hamburg, 8 cs.

PAINT PAPER

Chas. Grimmer Sons, France, Havre, 3 cs.

PARCHMENT PAPER

S. Gilbert, Rotterdam, Rotterdam, 12 cs.

TRACING PAPER

E. Dietzgen & Co., Jufuku Maru, Hamburg, 9 cs.

DECALCOMANIA PAPER

Phoenix Shipping Co., Lutzow, Bremen, 4 cs.

COLORED PAPER

Overton & Co., Pres. Harding, Bremen, 3 cs.
E. Dietzgen & Co., Resolute, Hamburg, 39 cs.

SURFACE COATED PAPER

T. G. Prager Co., Pres. Harding, Bremen, 1 cs.
Gevaert Co. of America, Zeeland, Antwerp, 12 cs.

BASIC PAPER

F. Henjes, Jr., Pres. Harding, Bremen, 7 cs.
Globe Shipping Co., Zeeland, Antwerp, 60 cs.

BARYTA COATED PAPER

F. Henjes, Jr., Pres. Harding, Bremen, 50 cs.
Globe Shipping Co., by same, 70 cs.

RED WAX PAPER

Gevaert Co. of America, Zeeland, Antwerp, 1 cs.

SILK PAPER

S. Gilbert, Ryndam, Rotterdam, 8 cs.

PAPER TUBES

H. de Maguin & Co., France, Havre, 6 cs.

CARDBOARD AND GUMMED PAPER

Draeger Shipping Co., Carmania, Liverpool, 4 cs.

GUMMED PAPER

A. L. Salomon & Co., France, Havre, 1 cs.

STATIONERY

R. H. Lea, Carmania, Liverpool, 106 parcels.

COVER PAPER

International Forwarding Co., Orduna, Hamburg, 6 cs.

TISSUE PAPER

W. J. Byrnes & Co., Cedric, Liverpool, 2 cs.

FANCY PAPER

Whiting & Patterson Co., Olympic, London, 3 cs.

WRITING PAPER

The Eleto Co., Mauretania, Havre, 2 cs.

MISCELLANEOUS PAPER

Miller & Wright Paper Co., Ryndam, Rotterdam, 2 cs.
Canfield Paper Co., by same, 9 bls.
Wilkinson Bros. & Co., Inc., by same, 4 cs.
Lubliner Palestina Cigarette Co., Ala, Rotterdam, 2 cs.
Du Pont Cellophane Co., France, Havre, 2 cs.
Coenca Morrisson Co., by same, 3 cs.
Hudson Forwarding Co., by same, 4 cs.
Standard Products Corp., by same, 14 cs.
F. C. Strype, Rotterdam, Rotterdam, 4 cs.
Franco-American Import Co., Mauretania, Bordeaux, 88 cs.

RAGS, BAGGINGS, ETC.

Maurice O'Meara Co., Ryndam, Rotterdam, 77 bls. gunnys.
J. J. Patricof Co., by same, 89 bls. rags.
P. Berlowitz, by same, 66 bls. rags.
Chemical National Bank, by same, 13 bls. rags.
Equitable Trust Co., by same, 115 bls. bagging.
C. R. Spence & Co., Inc., Chicago City, Bristol, 519 bls. rags.
S. Green, Miraflores, San Antonio, 15 bls. cuttings.
New York Trust Co., Tuscania, Glasgow, 14 bls. paper stock.
National City Bank, by same, 260 bls. rags.
Amsinck, Sonne & Co., Inc., Minnekahda, London, 35 bls. rags.
The Stone Bros. Co., Inc., Collamer, St. Nazaire, 47 bls. rags.
Goldman, Sachs & Co., by same, 45 bls. rags.
E. J. Keller Co., Inc., by same, 42 bls. rags.
G. Carizzo, Scotland Maru, Genoa, 41 bls. paper stock.
G. Carizzo, by same, 9 bls. bagging.
G. Carizzo, by same, 123 bls. rags.
Maitland Coppell & Co., Agwistar, Vera Cruz, 41 bls. rags.
A. W. Fenton, Inc., Ala., Rotterdam, 318 bls. rags.
E. J. Keller Co., Inc., by same, 92 bls. rags.
Katzenstein & Keene, Inc., by same, 19 bls. rags.
First National Bank of Boston, by same, 19 bls. rags.
National City Bank, Westphalia, Hamburg, 180 bls. rags.
Katzenstein & Keene, Inc., Jufuku Maru, Hamburg, 9 bls. rags.
Standard Bank of South Africa, by same, 200 bls. rags.
Maurice O'Meara Co., Rotterdam, Rotterdam, 60 bls. gunnys.
A. W. Fenton, Inc., Jufuku Maru, Hamburg, 104 bls. rags.
Royal Manufacturing Co., West Nosska, Manchester, 31 bls. cotton waste.
Anglo South American Trust Co., Nw. Miller, Dundee, 168 bls. paper stock.
Maurice O'Meara Co., by same, 27 bls. jute waste.
Amsinck Sonne & Co., Inc., Andalusier, Antwerp, 47 bls. rags.
A. H. Searle, Inc., Varentia, London, 78 bls. rags.
Katzenstein & Keene, Inc., N. Amsterdam, Rotterdam, 16 bls. rags.
Anglo South American Trust Co., Zeeland, Antwerp, 176 bls. flax waste.
Mechanics & Metals National Bank, by same, 230 bls. flax waste.
M. Androsi, Isonzo II, Genoa, 10 bls. rags.
Royal Manufacturing Co., by same, 37 bls. cotton waste.
Goldman Sachs & Co., by same, Naples, 165 bls. rags.
International Acceptance Bank, by same, 168 bls. dark cottons.
A. W. Fenton, Inc., West Eldara, Antwerp, 66 bls. rags.

GLUESTOCK

Connecticut Glue Co., Andadusier, Antwerp, 156 bls. rags.

OLD ROPE

Brown Bros. & Co., Ryndam, Rotterdam, 254 coils.
W. Schall & Co., Clontarf, Naples, 16 bls.

(*Continued on page 76*)

TYPE "B"
IRON EXTRACTOR
for
PAPER
MAKING

It consists of special magnetic surfaces of great power over which the paper stuff is made to pass. As a result, all the iron and many other foreign substances are completely extracted. Hundreds of these devices are in use daily and no one of them has failed to give complete satisfaction. Write us for Bulletins and full details.

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STANDARD and
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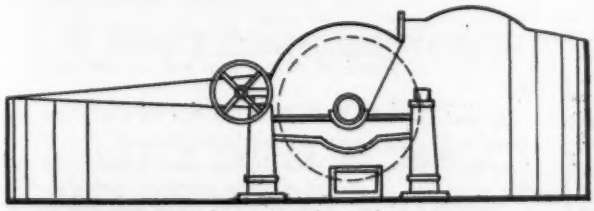

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Imports of Paper and Paper Stock

(*Continued from page 74*)

G. M. Graves Co., London Commerce, London, 37 coils.
Brown Bros. & Co., Chicago City, Bristol, 548 coils.
A. E. Rittwagen, Hemland, Huelva, 70 bls.

WOOD PULP

J. Anderson & Co., Jufuku Maru, Hamburg, 275 bls. sulphite pulp, 55 tons.
J. Anderson & Co., by same, 1,925 bls. sulphite pulp, 385 tons.
W. Hartman & Co., by same, 700 bls. wood pulp, 107 tons.
Pagel Horton & Co., Inc., Yokohama, Husum, 7,200 bls. sulphate pulp, 1,200 tons.
Ira L. Beebe & Co., Inc., Lutzow, Bremen, 2,515 bls. wood pulp.
Johanson Wales & Sparre, Inc., Progress, Hernosand, 3,600 bls. sulphite pulp, 600 tons.
J. Anderson & Co., by same, 2,700 bls. sulphite pulp, 450 tons.
J. Anderson & Co., by same, 6,000 bls. sulphate pulp, 1,000 tons.
Bulkley Dunton & Co., Progress, Stugsund, 1,350 bls. sulphite pulp, 270 tons.
Bulkley Dunton & Co., by same, 2,000 bls. sulphate pulp, 400 tons.
Bulkley Dunton & Co., Progress, Iggesund, 3,000 bls. sulphate pulp, 600 tons.
Guaranty Trust Co., Folkvard, Larvik, 12,311 bls. wood pulp, 2,462 tons.
Castle & Overton, Inc., by same, 5,000 bls. wood pulp, 1,000 tons.
Castle & Overton, Inc., ————, Germany, 840 bls. wood pulp.
Tidewater Papermills Co., Bornholm, Liverpool, N. S., 12,824 bls. wood pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Lutzow, Bremen, 341 bls.

CASEIN

Kalbfleisch Corp., Western World, Buenos Aires, 2,334 bags.
Aladdin Chemical Products Co., Westphalia, Hamburg, 140 bags.

CHINA CLAY

National City Bank, Chicago City, Bristol, 535 bags.

BOSTON IMPORTS

WEEK ENDING MAY 30, 1925.

G. F. Malcolm, Meltonian, Liverpool, 11 cs. tissue paper.
J. B. Moors & Co., by same, 800 bags hide cuttings.
Katzenstein & Keene, Inc., Lorain, Hamburg, 141 bls. rags.
Katzenstein & Keene, Inc., Nitonian, Liverpool, 175 bls. rags.
Brown Bros. & Co., Meltonian, Liverpool, 92 coils old rope.
Moore Munger, Tyne Maru, Fowey, 616 tons China clay.
English China Clay Sales Corp., by same, 2,705 tons China clay.
Ira L. Beebe Co., Inc., Lorain, Hamburg, 410 bls. wood pulp.
Castle & Overton, Inc., by same, 280 bls. wood pulp.
Castle & Overton, Inc., ————, Germany, 560 bls. wood pulp.
Price & Pierce, Ltd., H. H. Asquith, Walvik, 8,100 bls. sulphite pulp.
Pagel Horton & Co., Inc., by same, 3,000 bls. sulphite pulp.
J. Anderson & Co., H. H. Asquith, Soderhamn, 1,750 bls. sulphite pulp.
J. Anderson & Co., H. H. Asquith, Hernosand, 1,200 bls. sulphite pulp.
Pagel Horton & Co., Inc., by same, 4,650 bls. sulphite pulp.

NEW ORLEANS IMPORTS

WEEK ENDING MAY 30, 1925.

Castle & Overton, Inc., Cranford, Holland, 46 bls. rags.
Castle & Overton, Inc., Ogontz, Spain, 62 bls. bagging.

BALTIMORE IMPORTS

WEEK ENDING MAY 30, 1925.

Hubbs Corning & Co., Korsholm, Gothenburg, 7 rolls paper.
Brown Bros. & Co., Breedyk, Rotterdam, 13 coils old rope.
Brown Bros. & Co., by same, 53 bls. old rope.
Equitable Trust Co., by same, 830 bls. wood pulp.
International Acceptance Bank, by same, 180 bls. wood pulp.
Scandinavian Pulp Agency, Inc., Korsholm, Gothenburg, 762 bls. wood pulp.
E. M. Sargeant & Co., by same, 687 bls. wood pulp.
Chemical National Bank, Mexicano, Oslo, 1,200 bls. wood pulp.
Perkins Goodwin & Co., by same, 1,197 bls. wood pulp.
E. J. Keller Co., Inc., Jufuku Maru, Hamburg, 565 bls. sulphite pulp, 85 tons.
National City Bank, by same, 1,190 bls. chemical pulp, 169 tons.
W. Hartmann & Co., by same, 1,495 bls. wood pulp, 230 tons.
Equitable Trust Co., Progress, Hernaosand, 7,800 bls. sulphate pulp, 1,300 tons.
Johanson Wales & Sparre, Inc., Argosy, Sundsvall, 1,450 bls. sulphite pulp.
Johanson Wales & Sparre, Inc., Dania, Copenhagen, 750 bls. sulphite pulp.
National City Bank, by same, Iggesund, 1,000 bls. sulphite pulp, 200 tons.
Bulkley Dunton & Co., by same, 500 bls. sulphite pulp, 100 tons.
Price & Pierce, Ltd., by same, Walvik, 7,350 bls. sulphite pulp, 1,225 tons.

PHILADELPHIA IMPORTS

WEEK ENDING MAY 30, 1925.

J. H. Scott Paper Co., Jufuku Maru, Hamburg, 84 rolls newsprint.
M. Snellenburg, McKeesport, Havre, 1 cs. writing paper.
Stoehr & Sons, Legie, Hamburg, 1 roll paper.
Philadelphia National Bank, Mexicano, Oslo, 967 rolls paper.
National City Bank, London Commerce, London, 358 bls. rags.
Brown Bros. & Co., by same, 320 bls. rags.
A. W. Fenton, Inc., Honduras, Havre, 100 bls. rags.
D. M. Hicks, by same, 30 bls. rags.
Castle & Overton, Inc., by same, 143 bls. rags.
The Stone Bros. Co., Inc., Collamer, St. Nazaire, 438 bls. rags.
E. J. Keller Co., Inc., by same, 43 bls. rags.
Castle & Overton, Inc., Collamer, Bordeaux, 416 bls. rags.
D. I. Murphy, Jufuku Maru, Hamburg, 106 bls. rags.
McBlaine Co., McKeesport, Dunkirk, 48 bls. thread waste.
J. Walworth Sons., by same, 40 bls. cotton waste.
I. M. Hagy Waste Works, by same, 100 bls. rags.
Standard Waste Mfg. Co., by same, 30 bls. rags.
Castle & Overton, Inc., by same, 129 bls. rags.
McBlaine & Co., West Eldara, Antwerp, 30 bls. thread waste.
Brown Bros. & Co., by same, 18 bls. thread waste.
Castle & Overton, Inc., by same, 62 bls. rags.
E. J. Keller Co., Inc., by same, 442 bls. rags.
The Stone Bros. Co., Inc., by same, 98 bls. rags.
Salomon Bros. & Co., Hemland, Marseilles, 21 bls. rags.
K. Blank, by same, 40 bls. rags.
Castle & Overton, Inc., by same, 137 bls. rags.
National City Bank, Legie, Hamburg, 121 bls. rags.
Katzenstein & Keene, Inc., by same, 405 bls. rags.
J. B. Moors & Co., by same, 53 bls. rags.
Philadelphia National Bank, by same, 44 bls. rags.
Castle & Overton, Inc., by same, 304 bls. rags.
State Bank, Hornfeld, Bremen, 219 bls. rags.
E. Butterworth & Co., Inc., by same, 37 bls. rags.
Katzenstein & Keene, Inc., by same, 79 bls. rags.
Philadelphia National Bank, by same, 58 bls. rags.
Goldman Sachs & Co., by same, 31 bls. rags.
National City Bank, by same, 132 bls. rags.
Brown Bros. & Co., Nitonian, Liverpool, 16 bls. rags.
Katzenstein & Keene, Inc., by same, 32 bls. bagging.
Katzenstein & Keene, Inc., by same, 43 bls. rags.
Nilsen, Lyon & Co., Inc., Folkvard, Larvik, 2,000 bls. wood pulp.
Corn Exchange National Bank, by same, 4,000 bls. wood pulp.
Guaranty Trust Co., by same, 500 bls. woodpulp.
Scott Paper Co., A. F. Davison, Bridgewater, N. S., 925 tons wood pulp.
Philadelphia National Bank, Mexicano, Oslo, 600 bls. wood pulp.
J. Anderson & Co., by same, 750 bls. sulphite pulp.
The Borregaard Co., Inc., by same, 750 bls. sulphite pulp.
B. L. Soberski, Dania, Copenhagen, 600 bags woodflour.
B. L. Soberski, Mexicano, Oslo, 600 bags woodflour.

Simpson & Morehead Reorganize

TROY, N. Y., June 1, 1925.—The old established paper box firm of Simpson & Morehead, which has been a large factor in the paper box industry for fifty years, has undergone reorganization. James Morehead, sole owner of the business for many years, has disposed of a part interest in the business to Charles Hart and Fred A. Morehead and both are now members of the firm which will continue to be known as Simpson & Morehead. Fred A. Morehead and Charles Hart, the new members of the firm, have been identified with the business for more than twenty years. The former is a brother of James Morehead, who will continue as head of the firm.

Simpson and Morehead for a number of years operated three plants in Troy, Albany and Mechanicville making a wide variety of boxes. The company several years ago disposed of the Mechanicville plant and at the present time employs approximately 250 in the Troy and Albany factories. The Troy plant, the larger of the two, is under the management of James and F. A. Morehead. Production of this plant is largely paper boxes for the shirt and collar trade.

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New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, June 3, 1925.

While it is impossible to gloss over conditions in the paper market and speak of them as ideal, there is encouragement in the fact that the conditions at the beginning of June are more favorable than they were at the beginning of May and vastly more promising than they have been at certain periods of the past month. At this time last year, it may be pointed out, a reaction had begun to set in, which continued until the market lapsed into that dullness which lasted throughout the Summer and right up to the Fall. There is no indication at this time of a similar reaction and the situation may fairly be regarded as satisfactory when contrasted with conditions on June 1, 1924. The week has seen but little change. A constant stream of orders is coming in from the consumers but it is practically all small-lot buying. The experiences of manufacturers are at wide variance. Some are working their mills at near capacity while others are making strenuous efforts to obtain sufficient business to stave off a curtailment of working hours. There is, however, an apparent indication of business expansion which is not a customary thing at this time of year. It may lead to nothing more than a short-lived flurry and that is probably all it will lead to, for the hot weather period is now at the door. However, it is encouraging and may result in considerably better business even during the dull period than that which was experienced in 1924.

News print demand is holding up well. Contract buying has been on so elaborate a scale that there have been instances where spot-buyers have been subjected to some inconvenience and have been obliged to bide the convenience of the mills. In the metropolitan area the consumption of news print seems even now to be at its very peak.

There is a little more activity in book papers and the prices are firm. Most of the mills are sold up for several weeks ahead and some of the larger mills in the east hesitate about promising immediate shipments.

Board is in fair demand and competition for business is keen. This is true to such an extent that some concession-making is reported, although investigation shows that in such instances the quoted prices have been shaded only slightly.

Coarse papers have shown considerable improvement and are now in fair demand. Wrapping paper is doing especially well, the business in this line having been considerably better during the past two weeks than during the two weeks previous.

Mechanical Pulp

Consumers of mechanical pulp are now in an energetic buying mood and the market is regarded as in a better position than it has occupied for some time. Of course the news print and board mills are the most active buyers. Production is in a prosperous state, a plentiful supply of water facilitating the work of the grinders. Pulp is now being stored in reserve for the summer period when conditions are usually not so favorable.

Chemical Pulp

Large shipments of chemical pulp from abroad are now arriving in this country. These supplies are being disposed of in the market without difficulty and no price disturbance has been occasioned.

Old Rope and Bagging

The activity in roofing bagging continues to be the most interesting phase of the bagging market and prices are being further stimulated. Old rope is having a fairly steady demand and is, perhaps, doing slightly better than it was a week or so ago.

Rags

The rag market is now experiencing some lightning-like changes. The tendency is to higher price levels and the demand for most grades is considerably better than it has been. Roofing rags are having a boom and the prices have taken an upward leap.

Waste Paper

There is only a half-hearted demand for waste paper. Some of the consumers are buying in fair quantities but the volume of the business in general does not bulk up heavily enough to give entire satisfaction. The prices still hold to their low level and most of the business is being done on so low a margin of profit that it hardly pays to handle it. As a result collections are again falling off.

Twine

Twine is in even less demand than it has been. The market cannot be called absolutely flat but it has a leaning that way and the twine men are beginning to fear a repetition of the laggard weeks they experienced last summer.

Col. B. A. Franklin Presides at Banquet

[FROM OUR REGULAR CORRESPONDENT.]

HOLYOKE, Mass., May 26, 1925.—The regional meeting and banquet of the Associated Industries of Massachusetts was held Thursday night at the Hotel Nonotuck, about 150 attending. Col. B. A. Franklin of the Strathmore Paper Company presided. This is one of a series of 14 meetings held in different parts of the state. The speakers were Orra L. Stone of Boston, General Manager of the Association, who outlined the policies and reviewed the activities of the association; B. Loring Young also of Boston who is legislative counsel and who gave an exhaustive report on the past season's legislative work and bills passed and pointed out the effects that certain bills would have on industry; and Clifford S. Anderson, Vice President of the Norton Company of Worcester, who described trade conditions both domestic and foreign. John E. Daniel of Boston led the community singing and there were local soles by Andrew A. McCarthy of Boston, field secretary.

Paper Index Number Higher

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., June 3, 1925.—An index number of 116 has been given to paper for the month of April in the survey of current business just issued by the Department of Commerce as compared with 112 for the same month of last year, 111 for March and 99 for February.

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, June 3, 1925.

While the chemical market has not had anything like an active week, there is some satisfaction found in the fact that the market has not been going backward any during the past two weeks. That is slight satisfaction, it is true, in view of the fact that the demand for chemicals has been rather dull but it is getting along to the time of year when conditions might be expected to become worse and every week now that the market holds its own will help the average show up more encouragingly. In other words what might be called bad business the first of April would not be considered bad business a couple of months later and the hot summer is the dreaded gulf that has to be passed in any case. The activity in the alkalis, which was referred to in these columns a week ago, has kept up and at this writing all the alkalis are showing quite spirited animation. The effect has been a wholesome one on the entire market and while it has not brought marked improvement anywhere as yet it has materially improved the tone of things and may lead to actual improvement later on. Prices are not being shaken loose from the peg where they have been nailed. Having held where they are for so long a period, when conditions might be said to have encouraged a price revision, it is hardly likely that anything in the way of a radical revision will occur immediately. Unless supplies accumulate faster than they are accumulating now the quotations may be expected to hang around present levels and it is apparent that manufacturers are going to take good care to see that no great surplus accumulates. There are some who believe that concessions will be in the order of the day just as soon as the protracted hot spell comes along but there are others who maintain that conditions will not permit of general concession-making and that haphazard price cutting would be fatal to those who undertake it with prices where they are and conditions as they exist.

BLANC FIXE.—Blanc fixe has passed through another week without any appreciable change. The consumers are as unmindful of the future as ever and are apparently keeping their orders down to the lowest possible minimum consistent with their immediate demands. In spite of that tight buying attitude, however, there is sufficient business to keep blanc fixe from entering a languishing state. The pulp is still quoted at from $60 to $70 a ton and the powder at from $75 to $90 a ton.

BLEACHING POWDER.—The call for bleaching powder is lagging and this commodity is in none too healthy a condition at the present time. This does not seem to be disturbing the manufacturers greatly and certainly is not disturbing them sufficiently so that they show any inclination to come down on the price although many have believed that they would ultimately do so. If the present situation does not bring about a price reduction it is not likely that one can be looked for. In the meanwhile the consumers, who feel that the price should be marked down, are naturally ordering only such stock as they are really in immediate need of. The price holds at 1.90 cents a pound.

CAUSTIC SODA.—Under prevailing conditions, caustic soda is doing very well, having showed a slight betterment during the past two or three weeks. The demand is just about sufficient to keep the available stock in motion. It is selling at from 3.10 to 3.15 cents a pound.

CASEIN.—Casein is still hewing closely to the line. The demand has been very even for a few weeks and is looked upon as satisfactory considering the trend of the times. The ruling price is 12½ cents a pound.

CHINA CLAY.—Although China clay has long been having a phenomenal run of good business, there does not seem to be any weakening in that market and if anything conditions appear to be as promising as ever. It is certain to enjoy good business for some weeks at any rate. The imported grades are bringing from $16 to $20 a ton and the domestic grades from $12 to $15.

CHLORINE.—Chlorine is not showing any too much animation at this time. It has not lost any ground recently but improvement is in order and it does not come through. The quotation is from $4.50 to $7.00 a pound in tanks.

ROSIN.—Rosin continues to swing merrily along. There is a brisk demand which shows no appreciable slackening in spite of the fact that rosin has for weeks been having a super-demand. It takes little to promote a price revision on rosin and the price has been jumping about almost daily although it never shrinks far from the high levels it has been playing around. At this writing it is quoted at the naval stores centers at from $6.90 to $7.10.

SALT CAKE.—The steady, consistent contract withdrawals keep salt cake in an enviable position even though the spot buying has for some time been considerably under normal. Production has been curtailed somewhat but it is still being produced in fair quantities and the demand is keeping it well absorbed. It is bringing from $17 to $20 a ton.

SODA ASH.—Soda ash is doing slightly better now after the falling off in demand which has been experienced during the past two weeks. At this writing it looks as though soda ash would improve right up to the time when the really hot weather sets in. The price stands at 1.38 cents a pound on a flat basis at the works.

SULPHATE OF ALUMINA.—Sulphate of aluminum has not changed in the past two weeks. An occasional sale is reported at concessions but the business which is being transacted is practically all being put through on a sane basis. The commercial grades are bringing from 1.40 to 1.45 cents a pound at the Eastern works and the iron free from 2.10 to 2.25 cents a pound.

SULPHUR.—With sulphur responding to its regular contract withdrawals and the price remaining at from $18 to $19 a ton there is nothing new to report regarding its condition.

TALC.—Talc had a good week and the outlook for it is very favorable. The price is from $17 to $18 a ton.

Salesmen's Golf Tournament

Complete plans for a national intersectional golf tournament for members of the Salesmen's Association of the Paper Industry were announced at the meeting of the New York Division last week, at the same time that final details were being communicated to the Miami Valley, New England and Chicago divisions.

Following the playing of preliminary events in each of the four districts, to select teams of eight men to represent each division, there will be during the week of July 20 the finals to determine which division will have possession for the year of the James A. Outterson trophy. Each division will play medal play handicap on a course in its own section, and the team with the best total net showing will hold the trophy.

During June, each of the divisions will select its team, by holding on a set day a medal play competition, the eight best net scorers to be the team for that division.

Plans for the New York divisional competition were decided upon, and will be along the same lines of those in the other four divisions. On June 11, the New York candidates for the team will have a 1 o'clock luncheon at the Ardsley Country Club, at Ardsley-on-Hudson, then proceed to play eighteen holes medal play handicap. Any player not able to be there on that day, who can play on some other course, will be permitted to turn in his score, with his club handicap, after having declared his intention to compete in this manner. However, the plan is to make the Ardsley competition not only a tournament, but a spring outing for the New York division, and members from other districts who are in New York on that day are being invited to participate. Already Edwin D. Peck, chairman for the New York division, has been assured of a goodly number of competitors.

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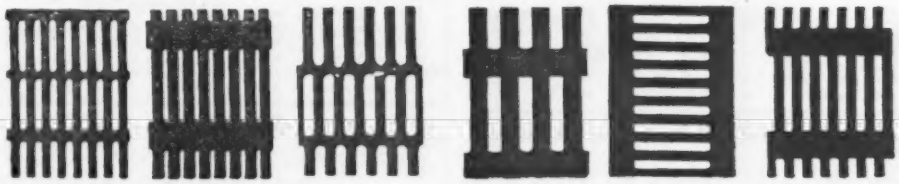

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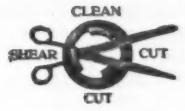
Camden 

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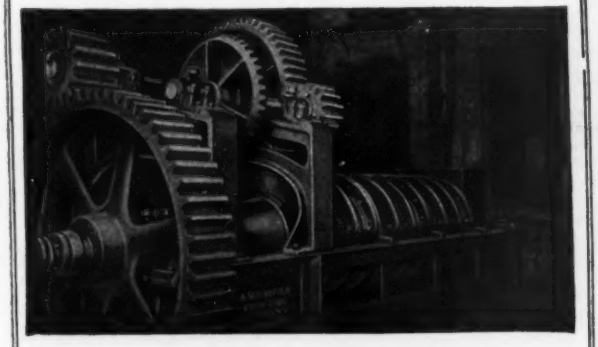

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This record of achievement is your guaranty of *Clay* of absolute uniformity at prices consistent with M-E quality and service.

Let us submit samples and quote you

THE MINER-EDGAR CO.
110 WILLIAM ST.
NEW YORK

Market Quotations

Quoted by Hepburn & Co., No. 74 Broadway, N. Y. City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	OFFERED
Abitibi Power and Paper, Gen. 6s 1940	100	102*
Advance Bag and Paper, 7s 1943	98	100*
Aroostook Pulp and Paper, 6s 1925	99	...
Bastrop Pulp and Paper, 7½s 1932	104	108*
Brompton Pulp and Paper, 6s 1927	93	95
Beaver Board, 8s 1933	92	94
Bedford Pulp and Paper, 6½s 1942	98	...
Berkshire Hills Paper Co., 8s 1941	...	80
Beaver Board, N. Y. Curb, 8s 1933	92	95
Beaver Products Corp., 7½s 1942	104	106
Belgo Canadian Paper, 6s 1943	100	101
Brown Paper Co., 8s 1931	102	...
Berlin Mills, 5s 1931	98	...
Bryant Paper Co., 6s 1942	98	101
Brown Company Serial, 6s 1925-43	97	100
Central Paper, 6½s 1925-42	91	94
Cape Breton Pulp and Paper, 6s 1932	99	...
Carthage Sulphite Pulp and Paper, 8s 1941	40	50
Champion Coated Paper Co., 6s 1924-34	...	102
Champion Fibre Co. Notes, 8s 1930	101	...
Cherry River Paper, 5s 1929	97	100*
Chicoutimi Pulp Co., 6s 1943	63	...
Donnaconna Paper Co., Ltd., 6s 1940	99	101
Eddy Paper, 7s 1931	97	...
Eagle Paper, 6½s 1932	96	100
Escanaba Paper, 6s 1933	85	...
Fox River Paper, 7s 1931	100	...
Fort Orange Paper Co, 7s 1942	95	99
Eddy Paper Co., 7½s 1931	95	...
Gilbert Paper Co., 7s 1927	96	...
Gilbert Paper Co., 6½s 1923-28	101	102*
Hammermill Paper Co., 6s 1930-39	99	...
Hercule Corp'n, 8s 1936	98	101
Hummell, Ross Fibre Corp., 7s 1925	90	...
Jessup & Moore Paper Co., 6s 1939	90	97
Kenmore Pulp and Paper Co., 6s 1937	89	...
Lake Superior Pulp and Paper, 6s 1941	105	...
Mattagami Pulp and Paper, 6s 1937	90	...
Marinette & Menominee, 7½s 1936	104	...
Mengel Company, 7s 1934	101	...
National Paper and Type, 6s 1947	96	99*
Oswego Falls Corp., 8s 1942	101	103*
Orono Pulp and Paper, 5s 1941	93	96*
Orono Pulp and Paper, 6s 1943	97	100*
Oxford Paper Co., 6s 1947	100	...
Paterson Parchment Paper, 5½s 1927-28	98	100
Paterson Parchment, 6s 1938	97	99
Parker, Young Co., 6½s 1946	92	96
Price Bros. & Co., Ltd., 6s 1943	100	102
Provincial Paper Mills, Ltd., 6s 1940	97	...
Riordon Co., Series A, 8s 1940	116	118
Riordan Paper, 6s 1924	91	94
Riordan Pulp and Paper, Ltd., 6s, 1929	33	35
River Raisin Paper, 8s 1936	104	106
St. Regis Paper, 6½s, 1929-35	97	102
Smith (Howard) Paper Mills, 7s 1941	96	97½
Smith (Howard) Paper Mills, 6s 1934	96	...
St. Croix Paper, 5s 1923-37	95	...
Stevens & Thomson Paper, 6s 1942	88	93
Spanish River Pulp and Paper, 6s 1931	105	108
Spanish River Pulp and Paper, Gen 8s 1941	107	109
Ticonderoga Pulp and Paper Co., 6s, 1940	91	95
Ticonderoga Pulp & Paper 1-5, 1930	88	93
Whittaker Paper, 1st 7s 1942	96	...
Watab Paper Co., 6½s 1942	101	...
Waterway Paper Products, 7s 1924-27	95	100
Wayagamack Pulp and Paper, Ltd., 6s 1951	87	90

STOCKS	BID	ASKED
Abitibi Power and Paper, Com	66	68
Abitibi Power and Paper, Pfd	108	...
Advance Bag and Paper, Com	8	12*
Advance Bag and Paper, Pfd	77	...
Beaver Board, Com	5	7
Beaver Board, Pfd	38	41
Bryant Paper, Cap	12	...
Bryant Paper, Pfd	9	...
Brompton Pulp and Paper, Cap	24	25
Chicago Mill & Lumber Co., Com	63	...
Chicago Mill & Lumber Co., Pfd	98	104
Crown Williamette, Com	93	98*
Crown Williamette, 7% A, Pfd	98	SW
Donnaconna Paper, Pfd	95	100
Great Northern Paper, Cap	255	265
Jessup & Moore Paper, Pfd	71	73
International Paper Co., Com	73	74
International Paper Co., Pfd	80	83
Mengel Company, Com	54	56
Mengel Company, Pfd	78	...
Oxford Papers, Com	93	97
Oxford Paper Co., Pfd	98	...
Provincial Paper Co., Com	94	98
Provincial Paper Co., Pfd	99	...
Price Brothers, Cap	38	39
St. Croix Paper	185	215
St. Maurice Paper Co., Cap	86	87
St. Regis Paper Co., Cap	54	56
Spanish River Pulp and Paper, Com	104	105
Spanish River Pulp and Paper, Pfd	115	117
Ticonderoga Pulp and Paper, Cap	145	...
West Virginia Pulp and Paper, Cap	44	47
West Virginia Pulp and Paper, Pfd	85	100
Whittaker Paper, Com	50	...
Whittaker Paper, Pfd	13	...

* Nominal.

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub Sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.50	@ 3.90
Rolls, transit	3.75	@ 4.25
Sheets	4.00	@ 4.25
Side Runs	3.25	@ 4.00
Book, Cased—		
S. & S. C.	7.00	@ 9.75
M. F.	6.25	@ 8.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream		
White No. 1	.70	@ .90
Colored	1.00	@ 2.00
White No. 2	.65	@ .75
Anti-Tarnish	1.25	@ 2.50
Kraft	.85	@ .95
Manila	.70	@ .80
Kraft—		
No. 1 Domestic	5.50	@ 6.25
No. 2 Domestic	4.50	@ 4.75
Imported	5.50	@ 5.75
Manila—		
No. 1 Jute	9.25	@ 9.50
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.00
Fibre Papers—		
No. 1 Fibre	5.50	@ 6.00
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.50	@ 2.75
S. Screening	3.00	@ 3.50
Card Middler	4.00	@ 5.00
Boards—per ton—		
News	45.00	@47.50
Straw	57.00	@60.00
Chip	42.00	@45.00
Binders' Boards	72.50	@77.50
Sgl. Mls. Ll. Chip	60.00	@62.50
Wood Pulp	70.00	@75.00
Container	62.50	@67.50
Sulphate Screenings—		
Coarse	.80	@ .90
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported	33.00	@37.00

(F. o. b. Mill)

No. 1 Domestic	28.00	@32.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	4.00	@ 4.50
Easy Bleaching	2.90	@ 3.25
No. 1 strong unbleached	2.75	@ 3.25
No. 2 strong unbleached	2.45	@ 2.80
No. 1 Kraft	2.95	@ 3.20
Sulphate—		
Bleached	3.75	@ 3.95

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.75	@ 4.50
Easy Bleaching Sulphite	2.90	@ 3.25
News Sulphite	2.45	@ 2.75
Mitscherlich	3.25	@ 3.75
Kraft (Domestic)	2.70	@ 3.25
Soda Bleached	4.00	@ 4.25

Domestic Rags

New Rags

Prices to Mill, f. o. b. N. Y.

Shirt Cuttings—		
New White, No. 1	14.50	@15.25
New White, No. 2	8.00	@10.00
Silesias No. 1	10.50	@11.50
New Unbleached	14.00	@15.00
Washables	6.50	@ 9.25
Fancy	975	@10.25
Blue Overall	10.25	@11.25
New Blue Prints	7.50	@ 8.50
New Soft Blacks	5.75	@ 6.25
Mixed Khaki Cuttings	5.75	@ 6.50
Pink Corset Cuttings	10.50	@11.00
Pink Muslin	10.25	@10.75
New Light Seconds	3.25	@ 3.50
O. D. Khaki Cuttings	6.50	@ 7.50
Men's Corduroy	6.25	@ 6.75
New Mixed Blacks	4.00	@ 4.50

Old Rags

White, No. 1—		
Repacked	7.50	@ 8.00
Miscellaneous	6.50	@ 7.00
White, No. 2—		
Repacked	5.00	@ 5.50
Miscellaneous	4.00	@ 4.50
St. Soiled, White	3.00	@ 3.50
Thirds and Blues—		
Repacked	4.00	@ 4.25
Miscellaneous	3.25	@ 3.50
Black Stockings	4.00	@ 4.50
Roofing Rags—		
Cloth Strippings	3.15	@ 3.25
No. 1	3.15	@ 3.25
No. 2	2.85	@ 3.05
No. 3	2.00	@ 2.25
No. 4	2.75	@ 2.85
No. 5A	1.80	@ 1.50

Foreign Rags

New Light Silesias	9.50	@10.50
Light Flannelettes	11.00	@12.00
Unbl'ched Cottons	14.00	@15.00
New White Cuttings	14.00	@15.00
New Light Oxfords	10.00	@11.00
New Light Prints	9.00	@10.00
New Mixed Cuttings	4.25	@ 4.75
New Dark Cuttings	4.00	@ 4.10
No. 1 White Linens	10.25	@11.25
No. 2 White Linens	7.50	@ 8.50
No. 3 White Linens	6.25	@ 6.75
No. 4 White Linens	4.50	@ 5.50
Old Extra Light Prints	4.25	@ 4.75
Ord. Light Prints	3.75	@ 425
Med. Light Prints	3.75	@ 4.25
Dutch Blue Cottons	4.00	@ 4.50
Ger. Blue Cottons	4.00	@ 4.25
Ger. Blue Linens	425	@ 4.75
Checks and Blues	3.50	@ 3.75
Linsay Garments	2.60	@ 2.70
Dark Cottons	2.50	@ 2.60
Shoppery	2.40	@ 2.50
French Blues	4.00	@ 4.50

Bagging

Prices to Mill F. o. b. N. Y.

Gunny No. 1—		
Foreign	3.10	@ 3.25
Domestic	3.15	@ 3.25
Wool Tares, light	2.60	@ 2.70
Wool, Tares, heavy	2.70	@ 2.80
Bright, Bagging	2.55	@ 2.65
Mixed Bagging	2.30	@ 2.40
Sound Bagging	2.10	@ 2.20
Roofing Bagging	1.70	@ 1.90
Manila Rope—		
Foreign	6.25	@ 6.75
Domestic	6.75	@ 7.25
New Bu. Cut	3.50	@ 3.75
Hessian Jute Threads—		
Foreign	4.00	@ 4.25
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.50	@ 3.75
Hard, White, No. 2	3.15	@ 3.40
Soft, White, No. 1	2.90	@ 3.15
Flat Stock—		
Stitchless	1.45	@ 1.55
Overissue Mag.	1.45	@ 1.55
Solid Flat Book	1.40	@ 1.50
Crumpled No. 1	1.25	@ 1.35
Solid Book Ledger	1.80	@ 1.90
Ledger Stock	1.40	@ 1.50
New B. B. Chips	.65	@ .75
Manilas—		
New Env. Cut	2.45	@ 2.60
New Cut. No. 1	1.75	@ 2.00
Extra No. 1 old	1.40	@ 1.50
Print	1.20	@ 1.30
Container Board	.70	@ .90
Bogus Wrapper	1.00	@ 1.10
Old Krafts Machine compressed bales	2.00	@ 2.10
News—		
No. 1 White News	1.90	@ 2.05
Strictly Overissue	1.05	@ 1.15
Strictly Folded	.75	@ .85
No. 1 Mixed Paper	.55	@ .65
Common Paper	.35	@ .45

Twines

Cotton—(F. o. b. Mill)—		
No. 1	.47	@ .48
No. 2	.41	@ .43
No. 3	.40	@ .42
India, No. 6 basis—		
Light	.19	@ .20
Dark	.17	@ .19
B. C., 18 basis	.39	@ .41
A. B. Italian, 18 Basis	.56	@ .61

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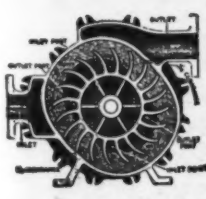

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Finished Jute—			
Dark, 18 basis...	.30	@	.31
Light, 18 basis...	.28	@	.30
Jute Wrapping, 3-6 Ply—			
No. 1	.20	@	.23
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger.	.15	@	.17
Fine Tube Yarn—			
5-ply and larger.	.20	@	.28
4-ply	.21	@	.24
3-ply	.22	@	.25
Unfinished India—			
Basis	.14	@	.15
Paper Makers' Twine			
Balls	.12	@	.13
Box Twine, 2-3 ply	.14	@	.15
Jute Rope	.20	@	.40
Amer. Hemp, 6	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis	.14	@	.16
No. 2 Basis	.10	@	.12
Sisal Lath Yarn—			
No. 1	.14	@	.15
No. 2	.11	@	.13
Manila Rope	.18	@	.19

CHICAGO

Paper

F. o. b. Mill

All Rag Bond	35	@	40
No. 1. Rag Bon..	25	@	35
No. 2 Rag Bond..	14	@	25
Water Marked Sul-Phite	9	@	12
Sulphite Bond	7	@	10¼
Sulphite Ledger	9½	@	12
Superfine Writing..	18	@	24
No. 1 Fine Writing	14	@	18
No. 2 Fine Writing	12	@	14
No. 3 Fine Writing	9	@	12
No. 1 M. F. Book..	5½	@	7½
No. 1 S. & S. C. Book	6½	@	7¾
Coated Book	8	@	10
Coated Label	8	@	10
News—Roll, mill...	3½	@	4¼
News—Sheets, mill.	3¾	@	4¾
No. 1 Manila	4½	@	5½
No. 1 Fibre	4½	@	5¼
No. 2 Manila	3¾	@	4¼
Butchers' Manila	4	@	4½
No. 1 Kraft	5¾	@	6¼
No. 2 Kraft	4.50	@	5.00
Wood Tag Boards..	4¾	@	6
Sulphite Screenings.	3.00	@	3.25
Manila Tissue, 24x36 sheet	7½	@	8
White Tissue, 20x30 sheet	7	@	7¼
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip	45.00	@	47.50
Solid News	47.50	@	50.00
Manila Line Chip.	57.50	@	60.00
Container Lined—			
(Delivered Central Territory)			
85 Test	—	@	75.00
100 Test	—	@	80.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.15	@	3.25
White Envel. Cuttings	3.15	@	3.25
No. 1 Soft Shav.	2.65	@	2.75
No. 1 Mixed	1.45	@	1.50
No. 2 Mixed	1.15	@	1.20
Ledger and Writings	1.50	@	1.55
Solid Books	1.40	@	1.45
No. 1 Light Books.	1.00	@	1.05
Blanks	1.90	@	1.95
Kraft	2.05	@	2.10
New Kraft Cuts.	2.30	@	2.35
Manila Envelope Cuttings	2.40	@	2.50
Ex. No. 1 Manila	2.00	@	2.10
Print Manila	.90	@	.95
Folded News (over-issue)	.85	@	.90
Old Newspapers—			
No. 1	.70	@	.75
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.55	@	.60
No. 2	.50	@	.55
Straw Clippings	.75	@	.80
Binders' Clippings	.70	@	.65
Roofing Stock, f. o. b. Chicago, Net Cash—			
No. 1	30.00	@	35.00
No. 2	28.00	@	33.00
No. 3	26.00	@	31.00
No. 4	20.00	@	25.00

BOSTON

Paper

Ledgers—			
Sulphite	.08½	@	.18
Rag content	.18	@	.36½
All Rag	.38	@	.50
Bonds—			
Sulphite	.08½	@	.12
Rag Content	.17	@	.45
All Rag	.36½	@	.51
Writings	.08	@	.20
Superfines	.22	@	.50
News	.05	@	.07
Book, Super	.09	@	.14
Book, Super	.08½	@	.13
Book, Coated	.09	@	.20
Coated Litho	.09½	@	.15
Label	.09½	@	.15
Jute Manila No. 1.	.11	@	.12
Manila, Sul. No. 1.	.05	@	.05
Manila, Sul. No. 2.	.03½	@	.04¼
No. 1 Kraft	.06¼	@	.06½
No. 2 Kraft	.05¼	@	.05½
Common Bogus	.03½	@	.04
Straw Board	—	@	50.00
News Board	—	@	45.00
Chip Board	—	@	42.50
Single Manila Pulp lined board	60.00	@	65.00
Single White, patent coated board	77.50	@	85.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	75.00	@	85.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1 Ply, roll	1.50	@	1.60
Best Tarred, 2 Ply, roll	1.70	@	1.80
Best Tarred, 3 Ply, roll	2.00	@	2.10

Old Papers

Shavings—			
No. 1 Hard White	4.00	@	4.25
White Blank News.	1.75	@	2.00
Manila Env. Cuttings	2.80	@	3.00
No. 2 Hard White	3.25	@	3.50
No. 1 Soft White	.04½	@	—
No. 2 Soft White	.03¼	@	—
No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock.	2.00	@	2.25
Writing Paper	—	@	1.70
No. 1 Books, Heavy	1.75	@	1.85
No. 1 Books, Light.	—	@	1.50
No. 1 New Manila.	2.50	@	2.60
No. 1 Old Manila.	1.75	@	2.00
Print Manila	1.05	@	1.20
Old Kraft	2.00	@	2.25
Overissue News	1.00	@	1.20
Old Newspapers	.70	@	.75
No. 1 Mixed Paper.	.60	@	.65
Box Board, Chip	.60	@	.65

Bagging

Price f. o. b. Boston

Gunny No. 1—			
Foreign	—	@	3.00
Domestic	—	@	3¼
Manila Rope	6.00	@	6.50
Mixed Rope	1.50	@	2½
Scrap burlaps	—	@	3.00
Wool Tares, heavy.	—	@	3.00
Mixed Strings	—	@	2.25
New Burlap Cuttings	—	@	3.75

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.15½	@	.15
Silesias, No. 1	.11	@	—
New Unbleached	.14¼	@	.15
Washable	.07¾	@	.08
Fancy	.10¼	@	—
Cottons—According to Grades—Blue—			
Blue overalls	.12½	@	—
New Black, soft	.07	@	—
Khaki Cuttings	.07	@	—
Corduroy	.04	@	.04½
New Canvas	.12	@	.12½

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1	10.00	@	—
Repacked	9.50	@	—
Miscellaneous	8.50	@	—
White No. 2—			
Repacked	6.50	@	—
Miscellaneous	5.25	@	—
Thirds and Blues—			
Repacked	5.00	@	—
Miscellaneous	3.50	@	—
Roofing Stock—			
No. 1	3.90	@	—
No. 2	3.00	@	—
No. 3	2.50	@	—
No. 4	2.00	@	—

PHILADELPHIA

Paper

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26¼
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph.	.09	@	.12
Label	.09	@	.12
News	.03½	@	.04
No. 1 Jute Manila	.09½	@	—
Manila Sul., No. 1.	.04½	@	.06
Manila No. 2	.04	@	.04½
No. 2 Kraft	.05	@	.05½
No. 1 Kraft	.06¼	@	—
Common Bogus	.02¾	@	—
Straw Board	55.00	@	60.00
News Board	52.50	@	—
Chip Board	52.50	@	—
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
Per ton	75.00	@	80.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1-ply (per roll)	1.70	@	1.80
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply.	2.00	@	2.10

Bagging

F. o. b. Phila.

Gunny, No. 1—			
Foreign	3.00	@	3.25
Domestic	3.00	@	3.25
Manila Rope	6.25	@	6.50
Sisal Rope	2.50	@	—
Mixed Rope	1.50	@	1.75
Scrap Burlaps	2.25	@	2.50
Wool Tares, heavy.	2.00	@	2.13
Mixed Strings	1.25	@	—
No. 1, New Lt. Burlap	3.50	@	3.75
New Burlap Cuttings	3.75	@	—

Old Papers

F. o. b. Phila.

Shavings—			
No. 1 Hard White	3.65	@	3.70
No. 2 Hard White	3.25	@	3.40
No. 1 Soft White	2.70	@	2.80
No. 2 Soft White	1.80	@	2.00
No. 1 Mixed	—	@	1.50
No. 2 Mixed	1.25	@	1.30
Solid Ledger Stock.	1.75	@	1.90
Writing Paper	1.60	@	1.65
No. 1 Books, heavy	1.35	@	1.40
No. 2 Books, light.	1.15	@	1.25
No. 1 New Manila.	2.40	@	2.50
No. 1 Old Manila.	1.50	@	1.75
Container Manila	.85	@	.90
Old Kraft	2.00	@	2.10
Over issue News	.90	@	.95
Old Newspaper	.60	@	.65
No. 1 Mixed Paped.	.50	@	.55
Common Paper	.30	@	.35
Straw Board, Chip.	.60	@	.65
Binders Bd., Chip.	.60	@	.65

Domestic Rags—New.

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.13½	@	.14
New White, No. 2	.06½	@	—
Silesias, No. 1	.10½	@	.11
New Unbleached.	.14	@	.14½
Washable	.07¼	@	.08¼
Fancy	.09½	@	.10
Cottons—according to grades—			
Blue Overall	.11	@	.11½
New Blue	.04	@	.04¼
New Black Soft.	.06	@	.06¼
New Light Seconds	.03½	@	.03¾
Khaki Cuttings	.06½	@	.07
Corduroy	.04	@	.04½
New Canvas	.08¾	@	.09
New Black Mixed	.05	@	.05¼

Old

White, No. 1—			
Repacked	7.00	@	7.25
Miscellaneous	6.25	@	6.50
White, No. 2—			
Repacked	.05½	@	.05¾
Miscellaneous	.05	@	.05¼
Thirds and Blues—			
Repacked	3.75	@	4.00
Miscellaneous	3.15	@	3.25
Black Stockings	4.25	@	4.50
Roofing Stock—			
No. 1	2.00	@	2.15
No. 2	1.90	@	2.00
No. 3	1.25	@	1.35
No. 4	1.10	@	1.20
No. 5A	1.10	@	1.15
B	1.05	@	1.10
C	1.00	@	1.05

TORONTO

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.10½	@	.12½
Light tinted	.11	@	.13½
Dark tinted	.12½	@	.15
Ledgers (sulphite)	—	@	.13
Ledgers No. 1	.36	@	—
Ledgers No. 2	.27	@	—
Writing	.09½	@	
Writing S C	.10	@	
News f. o. b. Mills—			
Rolls (carloads)	3.65	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	8.00	@	—
No. 2 M. F. (carloads)	7.50	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.50	@	—
No. 2 S. C. (carloads)	8.00	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.75	@	—
White Rap	5.25	@	—
"B" Manila	5.50	@	—
No. 1 Manila	6.50	@	—
Fiber	6.50	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	30.00	@	32.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	55.00	@	58.00
Sulphite, bleached.	80.00	@	85.00
Sulphate	62.50	@	65.00

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut.	3.60	@	—
Soft White Book shavings	3.25	@	—
White Blk, News.	1.70	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.40	@	—
Solid Ledgers	1.40	@	—
Manilas—			
New Manila Cut.	—	@	1.60
Printed Manilas	1.00	@	—
Kraft	2.10	@	2.10
News and Scrap—			
Strictly Overissue	.80	@	—
Folded News	.80	@	—
No. 1 Mixed Papers	.55	@	—

Domestic Rags—

Price to mills, f. o. b. Toronto

	Per lb.		
No. 1 White shirt cuttings	.15	@	.15¼
No. 2 White shirt cuttings	.08	@	.08½
Fancy shirt cuttings	.09¾	@	.10
No. 1 Old Whites	—	@	—
Third and blues	.05½	@	.05¾